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ORIGINAL DEPARTMENT.

LECTURE.

SENSIBILITY—NEUROSES OF THE PHARYNX AND LARYNX.

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Translated for the MEDICAL AND SURGICAL REPORTER.

GENTLEMEN.—The patient whom I now introduce to you has been sent to me for the purpose of being subjected to a closer examination. He is a laborer, aged 35 years, very well nourished and strongly built, and says that he has never been seriously ill.

Two days ago, while drinking with a companion, he quarreled with the latter, and at the moment when he had the glass at his lips, received a severe blow from him, so that the glass was broken into small fragments. Now he maintains that he swallowed a piece of the glass, and complains of a continuous pain in his throat, especially when he attempts to swallow.

Upon closer questioning we learn that the pain is referred to the pharynx near the larynx, and that it was more severe yesterday than it is to-day.

Professor Braun examined the patient yesterday, but neither by palpation nor inspection was he able to discover any foreign body, and he is before us now for the purpose of submitting to an examination with the laryngoscope, so that we may discover, if possible, the cause of his suffering.

Upon examination we find the mucous membrane of the pharynx of normal color; neither do we find any anomaly when we examine the posterior nares, by means of the rhinoscope. A

foreign body, or a lesion produced by one, is nowhere discoverable. The larynx is also perfectly intact, phonation is normally produced, and the voice is clear. When I touch the walls of the pharynx with a laryngeal sound, we find one point which, when touched, gives the patient pain. This point is situated on the posterior wall of the pharynx, about opposite the middle of the upright epiglottis. The mucous membrane in this region is perfectly normal. By moving the sound about over the mucous membrane, we are enabled to say with certainty that neither here nor anywhere else is there imbedded a foreign body. And yet the patient is perfectly sure that there is a piece of glass in his throat. We must, therefore, ask ourselves the question, have we here a case in which a painful sensation is produced without any discoverable cause, or is the patient simulating.

The latter is not very probable, because the patient declares that he has no ill will against his friend, and that he does not intend to take any legal steps against him. We have, therefore, no cause to doubt his veracity.

But, if his assertions are plausible, we must then decide whether he has really swallowed a piece of the broken glass or not, and if the first, whether the fragment is not somewhere imbedded in the tissues, or whether, if already removed, the pain is only owing to the injury.

The first question we have already answered, by our examination, in the negative. Yet I must here state that we must in such cases make a very minute examination of all the parts before we state positively that there is no foreign body present, as such a body may be far removed from the spot where the patient apparently feels it.

This is owing to the poorly developed sense of touch of the mucous membrane of this region.

The second question refers to the possibility that a fragment of glass may have been present for a time, and after having been removed, the pain may be caused by the injury inflicted. But this also, is not the case; neither Prof. Braun nor we have been able to find even the slightest swelling or hyperæmia.

Therefore, we are led to assert that our patient is mistaken when he believes there is a fragment of glass imbedded in his throat, or that there ever has been one there. The pains of which he complains are the expression of a disturbance of the tactile sensation, which we can explain about as follows: At the moment of the accident our patient was very much excited. The possibility of his having swallowed a fragment of glass became, in consequence of the great fear of most people of such an occurrence, to him, a certainty. From this to feeling the body was, owing to his excited condition, only a step, and thus we find him an excellent example of a phantastic paresthesia of the pharynx, such as is not seldom met with in practice.

The pathogeny of this case is not without interest, as it belongs to a class of cases which are met with often enough in general practice, but which have, until now, seldom been the subject of scientific research. These are the anomalies of sensibility of the pharynx and larynx. They are divisible into two groups: The anomalies of *kind* and *quality of perception*, or feeling, and the anomalies of *quantity* or *force* of perception. The first are termed paresthesias, and by that term we mean those forms of abnormal feeling which are either entirely of spontaneous origin, or are caused by very insignificant local irritations. These perceptions do not correspond with the local changes in any case.

The anomalies of quantity and force of perception, on the contrary, are relative to the latter, and are, if the sensibility is less than normal, called hypesthesia and anesthesia, or if it is increased, hyperesthesia and hyperalgesia.

Neuralgia of these organs is classed with neither of these forms, but is considered as a distinct form. Its chief symptom is the pain, which is paroxysmal and periodical, and there are no local changes discoverable.

Paresthesia of the pharynx and larynx makes itself manifest by a great variety of sensations; the patients complain of oppression, tickling, burning, dryness or soreness; in other cases they maintain that they feel something creeping about in their throat, or that a foreign body is imbedded therein.

Among the affections which are accompanied with a special predisposition to paresthesia of the throat, we must give hysteria the most prominent place. The so called *globus hystericus* is described as a ball which ascends from the stomach and is impacted either in the pharynx or larynx, and which often gives rise to the most intense dyspnoea. Other sensations, such as expiring cold air, straw, etc., in the throat, have been described.

Scarcely less seldom do we find paresthesia of the throat connected with hypochondriasis. These patients imagine themselves suffering with laryngeal phthisis, and complain of pain, burning and soreness of the throat, of which they are not relieved until they notice some other trouble, which still more endangers their lives.

Popular treatises on diseases of these organs can often be proven as a cause for such troubles. All these abnormal sensations can subside in a short time, or they can continue for a long period. The latter is especially the case with speakers and singers.

Another affection which can be accompanied with paresthesia of these organs is anæmia, and it also very often accompanies chronic inflammatory diseases of the lungs.

Curious and interesting are those paresthesias of the throat which we meet with in perfectly healthy individuals when under the influence of some severe excitement, such as the patient whom we have just examined shows. It is a remarkable fact that this trouble is seldom met with in genuine local changes: inflammations and ulcerations run their course without producing relatively severe symptoms.

Lastly, paresthesia of the throat sometimes accompanies the first stages of bulbar paralysis and paralysis of the sensible and motor tracts of the pharynx and larynx. These are accompanied by numbness, dryness, and formication.

Hyperesthesia of the pharynx and larynx is that increased irritability which is caused by a demonstrable peripheral irritation. An irritation may, therefore, cause a common but increased perception, which may be felt as pain or which may be accompanied only by reflex manifestations.

Hyperesthesia of the throat can be present without any discoverable change of the organic structure. It is sometimes so excessive, that, not only when the mucous coat is touched, but even when it is only approached, an unpleasant sensation and severe reflex action (gagging, coughing, vomiting), are produced.

I have been unable to satisfy myself that this idiopathic hyperesthesia is oftener met with in fe-

males than in males, as some inquirers maintain. I can, however, confirm the observation that it accompanies many physiological actions, such as dentition, menstruation, and pregnancy. In such cases it develops itself with the beginning of these actions and disappears with their ending. Violent emotions are also able to produce hyperesthesia. Most frequently hyperesthesia of the throat and larynx is caused by the local affections of these organs. Catarrhal, phlegmonous and erysipelatous affections are always accompanied by a more or less sensitive condition of these organs.

Ulcers and changes of a tuberculous nature are also sometimes accompanied by hyperesthesia. On the contrary, it is generally missing in syphilitic ulcers and in neoplasms, benign as well as malignant.

Phthisis pulmonalis is also sometimes combined with an excessive hyperesthesia of the pharynx and larynx, without any particular change of the mucous membrane of these parts. Neuralgia of these organs is very rare.

Anæsthesia of the pharynx and larynx is characterized either by a diminution of the normal sensibility, or by a loss of the perception of pain. The first form is not always positively a pathological one, because the sensibility may, under normal conditions, be very poorly developed. A safe criterion in such cases is the coexistence of motor neuroses, or some other affection of the nerves of these organs, with the anæsthesia. The symptoms of the severer forms of anæsthesia of these parts vary according to the nerves affected. Sensible paralyses of the recurrents cause the least inconvenience; those of the superior laryngeal nerves, however, give rise to serious trouble. Owing to the paralysis of the thyroid and aryepiglottic muscles the opening into the larynx is not properly closed during deglutition; at the same time the mucous membrane of the entire region is insensible, and so it happens that food is easily forced into the larynx, and through it into the bronchi, until it reaches a more sensitive part of the mucous membrane and gives rise to very severe paroxysms of coughing. If we examine the patient with the laryngoscope we will find the epiglottis upright and the mucous membrane somewhat reddened, owing, probably, to the repeated irritation produced by foreign substances. The membranes can be touched without producing any reflex action and without pain. The same condition is found in paralysis and anæsthesia of the pharynx. In these cases swallowing is often very difficult, or the food may be ejected through the nostrils. The anæsthesia

may be uni- or bi-lateral, and it may be more complete on one side than on the other. The patients often complain of a sensation of formication, burning, tickling, etc., and even pain may be felt (anæsthesia dolorosa).

Anæsthesia of the pharynx and larynx is most frequently seen in connection with hysteria. Less complete but relatively often it is found with anæmia and chlorosis. As a constant symptom it is also found during epileptic paroxysms, and during the asphyctic stage of a-iacitic cholera. It may also be produced by certain medicines; especially the narcotics when applied either locally or given internally; also by bromide of potassium. It has long been known as a sequel of diphtheria; it is developed in from one to four weeks after recovering from this affection, and may be complete or incomplete, uni- or bi-lateral, and more or less circumscribed.

If now, gentlemen, we try to explain the pathogeny of these affections we must remember that they are undoubtedly symptoms of an abnormal irritability. Such an irritability can be produced by a great variety of irritants.

For the sake of brevity I will call those irritations which are produced in the periphery peripheral, and those which are of central origin, central.

Paræsthesia can be caused by an irritation of the central organs; this is the case in hypochondriasis. Here the irritation is entirely a psychological one, for we fail to find any change in the peripheral organs or their nerves. The simple idea which is transferred under the influence of the consciousness of a strong intention of the mind to the periphery is strong enough to produce the most variable sensations in the pharynx or larynx.

In this manner emotional excitement may give rise to paræsthesia. Here the intention of the mind is momentarily directed to these organs by some accident, and the simple idea is changed into an apparently real perception, which perception in turn again acts as an irritant, and changes the momentary disposition of the mind into a permanent one.

Whether the seat of the irritation is central in those paræsthesias which accompany anæmia and chlorosis cannot be positively stated, but this seems the most probable, as the deficient nutrition of the central nervous system can give rise to false perceptions in the pharynx and larynx, while, on the contrary, anæmia of these parts will not produce them.

So, too, those paræsthesias which are referable to a very slight peripheral irritation may be

classed as central, because the peripheral irritation may be only an opportune one, and the real source may be central in origin. It is the fear which most persons have of swallowing pieces of bone, glass, etc., which causes them to convert a very slight irritation into the most extreme pain. On the contrary, the irritation is produced in the periphery, when the paræsthesia is the direct result of some local lesion which is proportional to the sensations produced. The irritation is peripheral which produces those paræsthesias which accompany the beginning of destructive processes in the lungs.

Of the localization of the irritation in hysterical paræsthesia I can say nothing positive. The fact that hysteria may be produced by both peripheral and central disturbances makes it probable that the origin of hysterical paræsthesia of these organs may also be either central or peripheral.

The pathogeny of hyperæsthesia of the pharynx and larynx needs but a few words after what I have said of paræsthesia. In those cases in which it is idiopathic, it may be regarded as one of the symptoms of some general affection. It may also have a local cause, which, indeed, is not always demonstrable, but we have seen that this effect may be produced by a rapid succession of touches or by inflammations.

Anæsthesia is generally produced by a material change in the nervous apparatus of the parts. We must seek the cause in the spinal centres in those cases in which our affection is only a symptom of a cerebral or spinal disease. Anæmic anæsthesias are also probably of central origin. On the contrary, the anæsthesia which follows diphtheria seems to be of peripheral origin.

The prognosis of the paræsthesias is generally favorable, although it should generally be cautiously stated. The same can be said of hyperæsthesia, and also of anæsthesia, but an extreme degree of anæsthesia of the larynx may be dangerous, because foreign bodies may, at any time, enter the air passages and thus cause death.

The therapeutics of these affections must be directed against the affections which they accompany. Only when the primary illness is incurable, or when the sensibility neuroses are independent of other troubles, is it necessary to direct our efforts against them *per se*.

Paræsthesia may sometimes be subsided by having recourse to delusive measures with the object of producing a psychical effect.

Hyperæsthesia requires especially a local treatment. Astringents, in the form of gargles

and inhalations, painting with solution of potassium bromide, hydrate of chloral and morphia, are beneficial.

Anæsthesia of the pharynx and larynx being generally self-limited, needs little treatment unless it becomes very complete; in such cases care must be taken that life is not endangered by the introduction of foreign bodies into the air passages. Food should, therefore, be given through an oesophageal tube, care being taken in its introduction, so that it does not enter into the larynx.

Of internal remedies strychnia is especially beneficial. Electricity, in the form of the constant or induced current directly to the affected parts, is also beneficial.

COMMUNICATIONS.

REMARKS ON THE IMPORTANCE OF ANAL FISSURE IN THE TREATMENT OF DISEASES OF WOMEN. PART II.

Read before the Allegheny County Medical Society, May 17, 1881,

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GENTLEMEN—In the spring of 1879 I read before you a paper under the above caption. This paper received your approbation and was published in the MEDICAL AND SURGICAL REPORTER, of Philadelphia, June 7, 1879. Its publication was followed by letters of commendation from professional brethren of high station, east and west, from whom came the request for another paper on the same subject. Finally the paper was re-published in Germany, in *Virchow and Hirsch Jahresh. f Bd.*, pp. 344, 347 and 348. Having now devoted two more years to the study of gynaecology I have collected many cases in which an anal fissure was the chief factor in numerous pathological problems. Among these patients the following maladies were seen and treated:—

Vaginismus, spurious ovaritis, neuralgia in ovarian region, pains along the sacrum and spine, and such hystero-neuroses as the first paper treated of. Irritability of the bladder, simple and complicated with hyperæmia of the lining membrane, mucosa urethrae, with prolapse of the same at the meatus externus.

In many cases the engorgement of the rectum and colon with fecal matter has produced pelvic congestion, uterine displacement, leucorrhœa, and given the patient that symptom so prevalent, bearing-down pain. My attention has been for-

cibly attracted to a cause of this malady which you will not, so far as my knowledge goes, find in text-books treating of the subject. It is this, that anal fissure is a very common result of partial laceration of the female perineum.

Vaginismus.—This term was applied by Marion Sims to an irritable spasmodic condition of the external sphincter vaginae and its associate, the pubo coccygeus, one or both muscles being involved. I omit any mention of its history or the operations devised for its cure—but will inquire why an anal fissure will produce so painful and inconvenient a phenomenon as *vaginismus*.

The superficial sphincter vaginae muscle begins at the centre of the perineal body. Its fibres are continuous with those of the sphincter ani externus, the two forming a figure of 8. The lateral halves of the sphincter vaginae externus are inserted above into the crura, or cavernous bodies of the clitoris. The deep sphincter vaginae, or sphincter internus, is the pubo coccygeus. It arises from the pubic rami and surrounds the vagina; a triple division of its fibres are lost in the perineal body, vagina and rectum, and the coccyx forms its alternate attachment. But the source of the nervous supply to the sphincters ani, sphincters vaginae and clitoris, is the same, viz., filaments from the sympathetic and filaments from the spinal system by division of the pudic branch of the sacral plexus. To be more explicit. The *pudic nerve* is an offshoot from the sacral plexus; its inferior hemorrhoidal branch is distributed to the sphincter ani and lower part of the rectum, its *anterior and posterior* superficial branches go to the vulva and sphincters vaginae, while a branch ascends to surround the clitoris with a “nervous sheath.” Now apply the law of reflex action, remembering that “the great sympathetic is endowed both with sensibility and the power of exciting motion.” The law of reflex action is, “that it originates from a sensation conveyed inward to the cerebro spinal centres, and is then transmitted outward to its final destination through the medium of one of the sympathetic ganglia.” All the muscles, including the clitoris, are supplied with sympathetic filaments, as well as the filaments enumerated from the cerebro-spinal system. By the law, then, we can consistently deduce the following proposition: *Any irritation applied to the sphincter ani muscle will or may produce reflex phenomena.* For example, irritation applied by fissure to the sphincter ani will or may produce spasm of the sphincter vaginae, either of the sphincter superficialis or sphincter profundæ, or both. And by the same law we

infer that irritation of the clitoris will or may produce contraction of either the sphincters ani or sphincters vaginae, or all. Allow me to now present a case illustrative of this theory:—

On June 16th, 1880, my friend, Dr. Wm. H. Daly, the president of this body, sent to me, for treatment, Mrs. H., aged twenty-seven years, married, with a laceration of the perineum extending down to the sphincter ani muscle. Two days after, in the presence of Drs. Daly and Rankin and my nurse, I closed the perineum with six silver sutures. Union by first intention followed, and at the end of a month she went to the mountains. On the 12th of October following she re-appeared at Dr. Daly's office and complained that I had sewed her up so tight that sexual intercourse was impossible, although she had done her best to accomplish it. Dr. Daly sent her back to me, and an examination revealed a fissure of the anus, probably overlooked at the time of the operation, an exceedingly opportune time to have effected its cure. I cured her fissure in a few days, after which she experienced no difficulty in the sexual act.

Spurious Ovaritis.—Frequently associated with anal fissure there is pain in the region of the ovaries; usually the left side is the one complained of, a fact doubtless due to the propinquity of the left ovary to the rectum. The pain may arise from the direct irritation of hardened faeces, or by reflex action from the irritation of the fissure itself. We have seen that to the sphincters are distributed filaments from both the cerebro-spinal and sympathetic systems. The filaments of the latter system arise from the hypogastric plexus, which is intimately connected with the renal plexus, from which the ovaries are supplied. In this form of disease, *spurious ovaritis*, we may have associated a dysmenorrhœa. This, because the ovary is more sensitive as its periodical physiological hyperæmia approaches and continues. Pain is, therefore, present in an increased ratio before the menstrual flow appears, and continues after the flow has advanced, and indeed, until the ovarian hyperæmia has disappeared. Such cases are more frequent than I formerly supposed. The following is illustrative:—

Miss M. A. E., aged thirty-five, single, presented herself for treatment February 5, 1880. She has dyspepsia, cough, anaemia, backache, leucorrhœa, constipation, anorexia, insomnia, and marked pain in left ovarian region, and pain coming on after the bowels are moved.

Inspection reveals an anal fissure, and a small hemorrhoid.

February 13, 1880, forcible dilatation of the

sphincter ani and ligation of the hemorrhoid was practiced. A cure was the result.

May 1, she looks well, has fair color, and has gained seven pounds in weight. Her pain in left ovarian region disappeared after the operation.

* *Irritability of the Bladder*, with resulting hyperæmia of the urethral lining membrane, is also a result of anal fissure. By the reflex law of sympathetic irritation the bladder is soon disturbed—frequent micturition, with congestion of the urethral lining and the subjacent cellular tissue results in excessive development of the tissues. The duplicatures increase, and are crowded forward, until prolapse at the external meatus results, the fold here exposed to atmospheric air becomes sensitive and an additional cause of reflex phenomena. The constipation in fissure cases is an important factor in the development of this condition. Tenesmus is apt to be present, and the patient persists in efforts to pass water after the bladder is empty.

In illustration, on December 17th, 1880, Mrs. Mary H., resident of Pittsburgh, came to my office for advice. Her appearance was haggard, and the evidence of suffering was patent in her countenance. She was aged thirty, menstruated at thirteen, married at fifteen, was a mother at sixteen. Never has been pregnant since. Six years after the birth of her child she acquired an irregular habit as to daily movement of her bowels. Soon after began having irritable bladder, tenesmus, backache and pain in the left groin. Has been treated *in extenso* for uterine disease. An examination fails to reveal any uterine disease. She affirms that sexual intercourse has been long avoided, by reason of pain "in the front."

The urethral mucous membrane is swollen and pouting at the meatus. The edges of the latter are very sensitive. After passing water or emptying the rectum she suffers pain, often lasting for an hour. I omitted to examine the rectum, and for seventeen days applied to the entire length of the urethra, once every day, Kennedy's Extract *Pinus Canadensis*, and gave her laxatives with boracic acid.

On January 3, 1881, the urethra was apparently free from congestion, but the irritability of the bladder persisted. A reexamination was instituted, stone was eliminated, but when the rectum was examined a fissure was discovered. On the following day forcible dilatation of the sphincter ani was practiced, and in a week the patient was discharged cured.

Fissure patients are, in my experience, habit-

ually constipated; the movement of the bowels is never free or complete, but impeded by the spasm of the sphincter muscle; residual feces remain, the rectum and colon become engorged. The mechanical pack acts like a tourniquet on the veins, and the blood is held back in the pelvis; the result is a constant hyperæmia. The pelvic cavity is encroached upon, and the cervix and body of the uterus is crowded toward the symphysis, and, in turn, by malposition, anal fissure increasing the impediment to the already crippled circulation, the vagina and uterus and urethra become hyperæmic; leucorrhœa, vaginal and cervical, will now appear.

Sooner or later, through the medium of the hypogastric plexus, the functions of the stomach and lower digestive tract, with its associate glands, become disturbed; meanwhile over-distention with feces and gas have impaired the muscular force of the colon. Reflex irritation will now pervert normal spinal sensibility into irritability, with often accompanying cephalgia, and, to crown the picture, hysteria "hangs over all." Such a patient I have seen, morbid and reticent, retired and gloomy, plagued by thoughts of eternal damnation, and hopeless, in the present or future, until cured of her anal fissure. But time admonishes that I must finally redeem my promise in reference to a new cause.

It is this: *Partial Laceration of the Female Perineum*. In my first paper I stated that I had found seven cases of fissure in the female for one in the male. I can now tell you that in unmarried and sterile women fissure is scarcely more prevalent than among men. But in women who have borne children and who have sustained partial laceration of the perineum, the affection is very common. Why? Because the female who has lost the perineal body has lost much of her power to unload her rectum, and will suffer from constipation, which will often result in fissure.

Why has she lost this evacuating power? The perineal body, a wedge between rectum and vagina, supporting both, is gone. The support given by the body, antagonizing the diaphragm and abdominal muscles is lost. This body, the antagonistic force of which is so essential, has been dissolved by a separation at its former centres of the transverse perineal muscles, and by the detachment of a tolerably fixed point of a portion of the levatores ani, the office of which is, during fecal evacuation, to shorten the rectum and to antagonize superior forces. A female thus crippled will suffer from constipation, pelvic hyperæmia, hemorrhoids and fissure;

this, in turn, to hurry her on into a condition calling for both your skill and sympathy.

**PRACTICAL NOTES ON OSTEO-MYELITIS.
THERAPY AS ALLIED TO OSTITIS AND
PERIOSTITIS.**

BY GEO. HALSTED BOYLAND, A.M., M.D.,
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Studiose personal observation, based upon well stored clinical experience, will enable the surgeon to lay down for himself such rules regarding aetiology, diagnosis, and therapeutics of the diseases he may be called upon to treat, as will serve him better than volumes of authority simply as authorities. This is not a plea for empiricism. Only after thorough schooling in the regular way, only after a sound study of all the very best standard works, will the professional mind be fitted to judge for itself, to leave the beaten track and enter that more independent mode of thought and practice which has so often restored sufferers to health and been productive of great gains to science. It is from this standpoint that the writer views osteo-myelitis as a disease of far more frequent occurrence than has generally been admitted up to the present time, so frequent, in fact, that it often loses its individuality as a disease *per se* altogether, and becomes a complication or secondary pathological process in certain affections of the bone.

Inflammation of the marrow of the bone has first been described in more modern times, but evidently had been already observed in earlier centuries. In a work edited by Viany,* near the end of the seventeenth century, are found, in this respect, two highly remarkable observations.

1. A man 30 years of age received a severe blow on the front side of the tibia. At first it appeared to be a question of only an ordinary contusion. But on the seventh day he was suddenly attacked by rigors that returned at irregular intervals. His skin became icterous and he died. An abscess of the liver was found, post-mortem, and beyond this a collection of pus in the cells of the spongy tissue of the tibia, which was caused by the congestion.

2. During the siege of Namur an engineer received a gunshot wound in the lower part of the leg, by which the bone was shattered. The ball could not be extricated and he died. The autopsy discovered suppuration in the condyles of the tibia and an abscess of the liver, "so that," says the author, "it can collect in the bone cells, where the matter can have no outlet at all."

Probably the lungs were not examined in
* *Cours du démonstrateur, royal de St. Come. Jean Louis Petit.*

either case, although Petit gave utterance to the opinion that a metastasis in the liver having gone out from a bone, a metastatic deposit of pus might take place in the lungs, going out from the fibrous tissue.

In a strictly anatomical consideration, osteo-myelitis proved to be a very frequent disease, as inflammation of the bone without any affection of the marrow does not, in general, exist. From a practical surgical point of view, however, only those cases will be designated as osteo-myelitis, in which the inflammation of the marrow is the most prominent feature, which is preferably the case in such bones as contain masses of marrow sufficiently large to be plainly distinguished by the eye, namely, in the diaphyses of the hollow bones. The following notes will be confined to acute osteo-myelitis of this nature only.

Etiology.—With ostitis and periostitis so intimately related pathologically to osteo-myelitis, the causal factors would, at first sight, seem clear; nevertheless, the aetiology of osteo-myelitis is, in many cases, dark (spontaneous form). In other cases a wound is discernible (traumatic form). In this place belong sawing through the bone in amputations and resections, fractures, especially complicated ones, at times those in which splinters broken off the cortical substance have pressed into the hollow of the bone; or contusions of the marrow, brought about in other ways. But often enough the most severe wounds of the bone run their course without the appearance of osteo-myelitis. In a very large experience that I have had in complicated fractures from gunshot wounds, this has usually transpired, as if fractures from gunshot alone enjoyed immunity from osteo-myelitis. On the other hand, slight contusions and simple concussions are sometimes followed by osteo-myelitis, the causes of which can then be sought in an especial predisposition, or in a *genius epidemius*. With reference to the morbid anatomical changes that take place, it will be observed that in the beginning the bone marrow assumes a dark-red color, and becomes more consistent than in the normal condition. Later, pus is found in it; further on it takes a yellowish-gray tint, until, finally, a complete abscess, or, more often, an infiltration of pus, is developed. Separate parts of the marrow become gangrenous, by which the fat that is set free from the fat-cells, rent asunder, collects in small drops. If it is an amputation stump, the marrow under pressure of the pus oozes forth from the bone where sawed off. The appearance of such an oozing

can also take place, when, out of the exposed bone marrow (as sometimes happens) true granulations grow up. Simultaneous with the inflammation of the marrow, the periosteum is detached from the outer surface of the bone by consecutive periostitis purulenta, ordinarily, to the extent to which suppuration is present within the bone. The portion of bone lying between undergoes changes also; the supply of blood is cut off from it on both sides, as the blood vessels running into it are either obliterated or disturbed; and it, therefore, as a rule, becomes necrotic, provided that the patient does not succumb before. Round about the necrotic piece a new growth of bone generally takes place. Ordinarily, inflammation of the nearest lying joint accompanies osteo-myelitis when the same is not entirely circumscribed, but when more extended, inflammation of both joints in whose formation the diseased bone takes part. Mostly serous exudation, seldom formation of pus or ulceration, develops in the affected joint. If in youthful individuals the epiphysis and diaphysis are not yet united by bone substance, osteo-myelitis of the diaphysis generally causes a suppuration or ichorous loosening off of the epiphysis. But this is by no means always the case; on the other side, inflammatory loosening off of the epiphysis does not necessarily presuppose osteo-myelitis.

Without devoting more space to that much neglected subject, morbid anatomy, the remainder of this article will be given to those points which the practical surgeon will at once seek for. It is, nevertheless, to be regretted that the American practitioners, as a class, lavish earnest attention and deep study upon therapeutics, surgical appliances and operations, while they are content to let pathology take care of itself, or at most, to give it only a hurried reading.

Symptoms and Course of Osteo-myelitis.—The symptoms of osteo-myelitis are in many respects obscure. Moreover, when the diseased bone is not exposed it is often quite impossible to distinguish it from ostitis and periostitis. If an amputation stump is affected with this inflammation, the oozing of marrow from the cut surface of the bone is the surest symptom. However, the ichor and pushing off of the marrow plug often occurs so quickly that instead of a plug hanging forth, a depression covered with suppurative or ichorous mass is found in the place where the interior of the bone was cut through. The whole amputation stump, as a rule, becomes edematous and hard, and the loosening of any union that may already have taken place in the wound affords the possibility of inspecting the bone itself.

If the bone whose marrow is inflamed does not lie exposed, as notably, in cases of spontaneous osteo-myelitis, stress must be laid upon the subjective symptoms. These patients complain of very severe, fixed pain in the depth of the limb, that soon becomes more extended (radiates), being sensibly increased by the warmth of the bed, and that cannot be relieved by any treatment, not even by deep incisions. The subjective sensation of weight and the impossibility of motion in the diseased part are more positively defined than in ostitis, and are just here especially characteristic. Presently, with very high fever, mostly inaugurated by rigors, all the other symptoms of inflammation of the bone and periosteum make their appearance; the soft parts in the vicinity of the seat of inflammation are affected to a large extent by a hard edematous swelling. *The course of osteo-myelitis* is generally rapid. Its usual result is suppuration, and its consequence pyæmia. A point is now reached at which there is an entire change in the symptoms and course of the disease, and a consultant being called in at this juncture, unacquainted with the origin of the present trouble, would unhesitatingly pronounce in favor of purulent infection, pure and simple. The recurrent chills, the icterous color of the skin, the typhoid condition of the patient (from this, undoubtedly, the name applied in various significations, "typhus des membres,") are symptoms that do not indeed belong to inflammation of the bone marrow as such, but to the fever, the pyæmia. In the ordinary course of the disease, purulent infection then brings the patient, with great rapidity, to death; otherwise, inflammation is developed in the neighboring joints and in the surrounding soft parts; finally, necrosis of the bone in the region of the diseased marrow.

Undoubtedly, cases do occur in which the osteo-myelitis runs a more mild course to a favorable result. Then the at first always high fever moderates, the topical characteristics disappear gradually, but soon entirely, and the further course of the disease is in no way distinguishable from that of a chronic inflammation of the bone. On amputation stumps, after favorable result of such an osteo-myelitis, we find ring-shaped necroses, that is, bone cylinders loosen themselves off, which present upon the saw surface a ring containing the entire thickness of the bone, but further upward become steadily thinner, until finally they consist only of the layer bordering directly on the marrow hollow, or, in other words, forming the interior of the bone.

Osteo-myelitis will at once be recognized as a

grave disease; therefore, without dwelling upon prognosis, the department of therapeutics will claim attention.

Treatment.—It will readily be deduced from the foregoing that the pathological relation existing between ostitis, periostitis and osteo-myelitis is such as to indicate a therapeusis to be conducted upon the same general principles for each and all. In order, therefore, to arrive at the best method of handling osteo myelitis, it is proposed to glance at the most approved treatment of ostitis and periostitis.

Ostitis.—In the treatment of *inflammation of the bone*, then, only inner medicines are demanded if the inflammatory process rest upon a constitutional disease, such as scrofula, syphilis, scurvy, rheumatism or gout. The well known remedies, a list too long to be enumerated within the prescribed limits of a single article, will be found of great value, especially the salicylates in gout and rheumatism. I usually determine what kind of topical treatment to employ by the degree of inflammation existing.

It will seldom be necessary to make a venesection on account of traumatic inflammation of the bone; it is more likely that the great capability of being wounded, and importance of near lying organs, such as the brain, the lungs, spinal marrow, large joints, might demand it. The usually slow course of ostitis certainly indicates local treatment, a position of rest for the affected part, ice, cold irrigations, oft repeated cupping, leeches. The topical drawing off of blood should at first be repeated every three or four days, later at longer intervals; particularly when hardnesses or thicknesses remain, is benefit to be derived from the employment of iodine, salves, fly blisters, mercurial plaster, alkali and sulphur baths, volatile embrocations; but before all, antispasmodics by means of a seton or fontanel directly over the portion of bone covered with thickened soft parts. As a rule narcotics should only be exhibited as a last resort in the most intense pain.

Even the large doses of the bromide of potash are often successful, especially combined with hydrate of chloral. Hydrate of chloral alone is preferable to opium or its alkaloids. Both the bromide and the hydrate possess this advantage, that they do not constipate; the torpidity of the bowels induced by other narcotics is a decided objection to their use in a disease where it is very important to keep the bowels well regulated. The diet should be bland and restricted at first, so long, in fact, as any signs of congestion and much fever remain; when these diminish and the

case assumes a chronic aspect, strengthening food with quinine and steel are indicated.

If the bone is entirely exposed for a distance, either by a flap wound, loss of substance, periostitis, suppuration, or by any other means, nothing is more rash than to suppose that it must necessarily become necrotic in its superficial layers, and therefore be given up. On the contrary, this portion of the bone must be kept moist, with the greatest care, by cataplasms or bandages wet with mild oils and salves; the main point in the treatment of exposed bone is to protect its surface from an evaporation that may easily result in dryness of the superficial layers, which would then certainly end in necrosis. Having taken the bone as a pathological basis with reference to periostitis and osteo-myelitis, this order seeming to me to be a natural one, from the anatomical position of the parts, the *treatment of periostitis* now presents itself.

In acute periostitis, at the beginning of the disease, a general and topical antiphlogistic treatment is demanded, according with the intensity of the inflammation. Above all things the application of ice externally, with bits of ice given per orem, are most strongly recommended. The best plan and the only one through which the frightful pain can be quickly alleviated, and in many cases even the necrosis of the bone also prevented, is to make a deep incision in the limb, down through the periosteum. In a periostitis of the fingers no experienced physician would hesitate to employ this remedy at once. The uncertainty of the diagnosis, perhaps also the want of sufficient self-confidence in operating, keeps some from putting this procedure into practice when the periostitis has its seat in the femur. But in this locality, just as in the other, the only cure to be expected is from incision. The after-treatment resolves itself into that of a suppurating wound.

Periostitis, like ostitis, or, as it is sometimes called, *osteitis*, often loses its acute type and goes over into that longer and more mild course, briefly known as chronic. It is then that a steadily continued antiphlogistic, disquietant treatment, and one that is most likely to induce resorption, ought to be employed. In handling any of these affections, of course, the practitioner will carefully regard any dyscrasia that may be lurking about the system.

Conclusion—Treatment of Osteo-myelitis.—*Repetitio est mater studiorum*; and as a truly professional man is always a student, even this trite phrase will hardly be necessary by way of apology for any repetition that may be made in asserting that the treatment of osteo-myelitis

must, in general, be the same as that of *ostitis* and *periostitis*. The most prominent point here offering is the question of the *incision*, so efficacious in *periostitis*. But the diagnosis of an *osteomyelitis*, in the great majority of cases, will seldom be fixed early enough, and with sharpness enough, to warrant an incision (analogous to that in *periostitis*) reaching down into the hollow of bone, in order to procure free outlet for the pus.

Such an operation would invariably cause the bone to be exposed, and if exposed already, still more so, and this, as well as cutting through the bone itself, would be the causes of a new *osteomyelitis*. For this reason the incision will be abandoned, and our treatment become restricted to the removal of any recognizable causes, such as splinters and foreign bodies, followed by a topical antiphlogosis. Among the medicaments to be exhibited now, cold is most praised. Cold applications, ice bags, cooling saline drinks and bits of ice given by mouth during the fever. Blood-letting is to be avoided, in view of collapse that may supervene later on and only too easily. In affections of this nature I have found painting the diseased parts with tincture of iodine, made stronger by the addition of iodine, of great value. Its power as a counter-irritant in relieving pain, its action as a disfectant, fit it particularly for application in *osteomyelitis*. To the officinal tincture of iodine as much iodine again as it already contains should be added. The, what might seem, superfluous addition of iodine certainly does not become soluble, but it can be easily held in suspension by shaking, and the working of this tincture of iodine "*fortior*" is undoubtedly stronger than that of the officinal tincture of iodine, the suspending particles settling directly on the skin surface and causing a slightly blistering process in cases of spontaneous *osteomyelitis*.

The free and early incision so imperative in *periostitis*, and extending down to the bone, does not possess any advantage then, here; on the contrary would only do harm, as it would allow the entrance of air to the edematous infiltrated soft parts, and, as a rule, bring about ichor in them. Nevertheless, incisions in the soft parts, for the purpose of emptying pus collected in or under them, are recommended here, as everywhere. It is doubtful if anything is to be gained by amputation when the symptoms of *pyæmia* set in. At all events the whole diseased bone must always be removed, in other words, exarticulated. In this manner comparatively good results have been obtained by I. Roux. The

patient's condition will require tonics and strengthening diet, with attention to the bowels and general hygiene. In restlessness and insomnia, during the course of the disease, doses of a solution of the bromide, iodide and nitrate of potash, in equal quantities, will be found to act kindly. Stimulants in moderate quantities, well diluted.

In bringing this article to a close the writer takes pleasure in calling attention to the absence of authority, and to the fact that the modes of treatment herein suggested are in many respects entirely his own, and such as common sense and experience have shown to be the best, at the same time always such as have been in accordance with the teachings of science.

HOSPITAL REPORTS.

UNIVERSITY OF PENNSYLVANIA.
Service of Prof. D. HAYES AGNEW, May 25th, 1881.

Reported by GUY HINSDALE, M.D.

Case I.—Hydrocele.

This patient, an old man, has a swelling which occupies the whole of the right side of the scrotum. The swelling is pyriform. It began at the lower portion of the scrotum and increased upward, and has extended to the external abdominal ring. It stands out from the pelvis; it does not fall down beside the limb. It is irreducible and does not disappear under manipulation. Tested by light it is translucent. We have, therefore, hydrocele; and yet, in spite of all these facts, it has been treated for a year as a case of chronic orchitis! It is astonishing that such a mistake could have occurred. Such a blunder is inexcusable when we have the light test, which in a moment shows its translucency, and when we have the grooved needle, which would instantly have revealed the presence of serum. He comes here for treatment and wants to be permanently cured.

You all know what hydrocele is. It is an accumulation of a serous fluid in the tunica vaginalis. This fluid is almost always coagulable. We will draw off the contents of the sac and inject the tincture of iodine, as you have repeatedly seen done at this clinic, and which almost invariably effects a cure. Two drachms of the pure tincture are usually sufficient, but in this case I will use three drachms and allow it to remain in the sac. The inflammation that results is not so very intense, and on the fourth or fifth day begins to subside.

In tapping the hydrocele, first grasp the tumor with the left hand, making the skin tense; then, taking care not to wound the testicle, which is situated above and at the back part, push the trocar and canula directly into the sac.

When we have a healthy testicle and a healthy sac wall the fluid is of a light color, as you see here. Occasionally, however, the fluid is dark colored, a condition which is due to the presence of disorganized blood corpuscles, and, when not

the result of injury, is often associated with a diseased condition of the vaginal tunic or of the testis. The hydrocele, in such cases, is generally the effect and not the cause of the glandular trouble. If you have a large testicle, never inject anything to cure the hydrocele.

After emptying the sac completely, the testicle should be examined, to discover if there is any enlargement, or undue sensibility, which might render it improper to attempt a radical cure. Upon finding nothing of this nature we inject through the canula three drachms of the pure tincture of iodine, and by manipulation we bring it in contact with the opposing surfaces of the sac. The canula is then withdrawn and the iodine is retained. Pain is experienced along the cord and often in the loins. By the third day you will find the swelling almost as great as before. Keep the patient quiet, place something under the scrotum and give it the requisite support, and if his pain continues long and is very severe, he should have a quarter of a grain of morphia. In a few days the size of the swelling will decrease *pari passu* with the decline of the inflammation.

You will generally be able to suspect failure in the operation when the inflammatory exudation is thin. When it is thick, you may know that the operation is going to succeed.

Case 2.—Hydrocele.

This is a similar case in a younger subject. He is nineteen years old. Tested by transmitted light the tumor is found to be translucent. The trocar should always be sharpened after every second operation. If it hitches a little it is not in the best order. As I thrust in the trocar and canula and withdraw the trocar a clear serous liquid flows out. This lad comes from Allentown. It is not well to let a patient travel to his home after even so simple an operation as this. It used to be done; it was done in London, and by Sir Astley Cooper.

Always make the patient cough, as you saw me do, to see if there is a hernia complicating the hydrocele. In this case the pain is much more severe than in the previous one, and he cries out. At the end of seven days the patient may sit up, and in four or five weeks the cure will be complete. Sitting up does no harm, provided the scrotum is well supported in a suspensory bandage.

Case 3.—Infantile Hydrocele.

Here is another swelling, occurring this time in a child two years old, but in the same locality. It also stands out prominently from the body. The child's crying helps us in the diagnosis. If it is simply a hydrocele the distention will not increase when he cries. I will see if it is reducible, and I find that it is not. Congenital hydrocele is a rare affection, although it is stated in some books to be very common.

In this form of the disease the tunica vaginalis is often not sharply separated from the abdominal cavity, but it is continuous with it. The investing prolongation of the peritoneum adheres sufficiently close to the cord, in most instances, to allow only of the accumulation of the fluid which constitutes the hydrocele; intestines and omentum do not usually descend.

As the child is etherized, a hernia becomes apparent, from the intense struggles.

This hydrocele is to be treated very differently from the other cases that we have seen to-day. In congenital hydrocele injections would be dangerous because of the continuity of the vaginal tunic with the abdominal cavity. The patient might perish from the consequent inflammation. Infantile hydrocele may be treated by several methods. You may use the expectant plan. It is not uncommon in young children for the fluid to be absorbed. Applications of solutions of iodine or of muriate of ammonia may aid this process. Again, you may treat the hydrocele by puncturing it with a sharp-pointed bistoury and evacuating the fluid. After this a portion of the tunica vaginalis should be seized with the forceps, drawn through the wound and snipped off with a pair of scissors. Finally, infantile hydrocele may be treated by the seton. This is a method which I regard as very satisfactory, and it is applicable to all varieties of the disease. I will employ it in this case. I puncture the sac with a sharp-pointed bistoury, and along the blade of the instrument I introduce a needle armed with a single silk thread, and I bring it out through the skin of the scrotum. The knife blade makes an excellent director, and we are sure of getting into the sac.

One loop of the seton is abundant, it serves to drain away the serum and to develop sufficient inflammation to cure the disease. The thread should never be allowed to remain in over thirty-six hours, for it might be followed by an abscess. We will tie the silk with a large loop, in order to allow for the swelling that will follow.

Case 4.—Fatty Tumor.

This colored man comes with a large tumor of the shoulder. It is pendulous, and moves freely under the hand; when I pinch it, it falls into dimples and depressions. There are a number of lobes or masses fastened together.

These fatty tumors are harmless, but they may grow to an enormous bulk. An aged woman came into my office, on one occasion, having what I supposed to be a peddler's pack strapped across her shoulders; I thought she had come in to sell something. Upon removing her clothing she exposed an enormous lipoma, suspended in a bag, and, on withdrawing the support, it hung down almost to her loins.

In the treatment of these growths nothing avails but to remove them by the knife. Fatty tumors of the back are rarely found very movable or encapsulated; in other parts of the body they may often be easily enucleated.

After removal they do not, as a rule, return, but sometimes you see a sarcoma start up from the very bed from which an adipose growth has been excised.

I am confident that the development of these growths is associated with irritation of the skin and subcutaneous tissue. They occur everywhere except upon the palms of the hand and soles of the feet, although I have seen one case of such a tumor in this last region.

Case 5.—Varicocele.

This patient has, as you see, a varicose condition of the veins of the scrotum, but that, alone,

does not constitute varicocele. We find, however, that the veins of the cord are increased; as I feel them, they seem like worms rolling between the thumb and fingers. He says that it is only an inconvenience. You see that the scrotum is a little longer now than when he first came in. He complains of a dragging weight from the pubic bone, a sensation which traction on the cord is sufficient to produce. This is a slight case and a suspensory is the only thing required. There is here no change in the testicle. In many cases of varicocele, especially in persons of mature life, the disease remains stationary, or makes such slight progress as to demand little, if any, attention. When, however, the patient complains of severe pain in the back and an uncomfortable sense of dragging weight, or when the testicle begins to soften and atrophy, the question of operation must be considered. The application of cold water two or three times a day will impart tone to the dartos and cremaster muscles and stimulate them to contractility, and in this way contribute much to palliate the symptoms.

The structural changes which occur in bad cases of varicocele affect both the spermatic veins and the testicles. The walls of the veins present a knotty appearance, due to inflammatory infiltration; at other parts the venous coats may be markedly attenuated. We find, also, occasionally, phlebolites in the cavity of these vessels. The sluggishness of this circulation in the venous trunks necessarily deprives the testicle of that free interchange of blood which is essential to its proper nutrition; consequently, the testis becomes soft and frequently atrophies to a greater or less extent.

There are cases of varicocele in which the physical inconvenience leads to great disturbance of the patient's mind. When they see the scrotum hanging down, and suffer this constant, dragging pain, they become depressed, and great fears are entertained that their virility will be destroyed. There is no amount of persuasion that will convince such a patient that the affection is not serious; he is disqualified from any pursuit, and evil forebodings haunt him like a spectre, day and night. When such a case presents itself, a few words of explanation and encouragement on your part will do much to restore mental quietude. If this fail there remains only one course to be pursued, and that is to attempt an obliteration of the veins by an operation.

MEDICAL SOCIETIES.

IOWA UNION MEDICAL SOCIETY.

The annual meeting of the Iowa Union Medical Society was held in the Superior Court room, Cedar Rapids, Iowa, June 14th. The President, Dr. W. M. Skinner, of Anamosa, in the chair. Dr. Edward Burd, of Lisbon, Secretary. Twenty-eight members present.

Dr. Watson, of Springville, brought before the Society a little boy, three years old, with antero-posterior curvature of upper portion of spine, which showed itself when the child was but two weeks old. Forceps were used at its birth. After

a discussion of the probable cause of the curvature, in which several members took part, the treatment which seemed to be best indicated was the application of Dr. Sayre's jury-mast.

Dr. G. P. Carpenter, of Cedar Rapids, brought before the Society a very pale and thin child, a boy, nine years of age, with Pott's disease. When three years of age, he was injured by his mother falling on him in getting out of a carriage. He immediately began to suffer from pain in the lumbar region. Two years afterwards posterior curvature was discovered in this region. In June, 1880, an abscess formed at the convexity of the curvature, and the pus dissected its way downward to the right hip-joint, pointed there and was opened. Since which time several pieces of spongy bone have been discharged. Repeated probing about the hip-joint has failed to reach any necrosed bone in that region. Several sinuses connected with the carious vertebrae have opened near the hip-joint and over the ilium. Another abscess is now forming at the left side of the carious vertebrae. The child has worn a brace, and the treatment has been tonic and supporting. The prognosis was unfavorable.

Dr. H. Ristine, of Cedar Rapids, approved Dr. Carpenter's treatment, and suggested the addition of cod liver oil.

Dr. J. C. Baldoz, of Mechanicsville, recommended sulphide of calcium as of much value in cases of caries of bone, and thought it might prove beneficial here.

Dr. M. Meredith, of Vinton, reported the death, in May, 1881, of Dr. E. L. Langstroth, of Vinton.

Dr. C. C. Griffin, of that city, was appointed a committee on necrology.

The President-elect, Dr. J. M. Armstrong, was then conducted to the chair, and the retiring president delivered an excellent address, which, on motion, was ordered printed.

On motion of Dr. A. B. Reid, of Cedar Rapids, it was resolved that the sessions of the Society hereafter be opened with prayer by some member of the clergy selected by the president.

Dr. J. M. Armstrong, of Lisbon, read a report of several cases of diphtheria successfully treated by means of hyposulphite of soda, quinine and whisky, and insufflations of sulphur. He believes the hyposulphite capable of destroying the germs of the disease.

Dr. E. Burd reported ten cases treated in a similar manner, with equally good results. (See MEDICAL AND SURGICAL REPORTER, Vol. xliii, p. 445).

Dr. M. Meredith, of Vinton, has used the hyposulphite of soda, and thinks it a valuable remedy in diphtheria, but prefers the following prescription:—

R.	Potassae chloratis.	3j
	Acidi hydrochlorici,	3j
Fl. ext. bellad.,		3j
Aque,		3j

Sig.—f. 3 ss to an adult, every two hours.

Dr. H. Ristine, of Cedar Rapids, had used both these plans of treatment, and has no confidence in them or in any other specific plan.

Drs. J. C. Batdorf and J. W. Lagrange use fluid extract jaborandi in the early stage, with benefit.

Dr. G. E. Crawford, of Cedar Rapids, considered the disease both contagious and infectious, and thought that physicians could not be too careful to prevent carrying the disease to their own families.

Dr. H. Ristine reported a successful case of nerve stretching. The history of the case is as follows:—

During the summer of 1879, Mr. M. L. Elliott, of Marion, Iowa, consulted us (Drs. Ristine, Son, and Holmes), for treatment of a painful neuralgic condition of the entire left thigh and leg, from which he had been suffering during the past ten years. We found the limb atrophied and tender along its entire course, with pain and tenderness along the whole course of spine and back part of the head, and gave it as our opinion that the symptoms were due to injury of anterior crural nerve, caused by gunshot wound of middle third of that thigh, received in battle during the rebellion, and advised him to consult Drs. Hammond or Weir Mitchell as to the proper course of procedure. He chose to see the latter, who advised the operation of stretching the nerve as the only probable means of relief. His condition, in a few months after his return from Philadelphia, became so much aggravated that he was compelled to discontinue business, and in April, 1880, requested an operation for the relief of the extreme pain he was then suffering, being at that time so much prostrated as to render him unable

to leave his room. The operation was made by an incision over the anterior portion of the thigh, dissecting the integuments and fascia, extending beyond the cicatrices caused by the entrance and exit of the ball, and exposing the branches of the anterior crural nerve, and resecting of three-fourths of an inch of the smaller, and lifting from their bed several of the larger branches, and drawing them up and down.

Quite severe constitutional symptoms supervened, followed by numbness of the limb, which continued for some time, after which pain ceased; general health rapidly improved; gained twenty pounds in two months after operation. During the past six months has been engaged in active business, and says his general health is as good as at any time during his life.

Dr. G. E. Crawford, of Cedar Rapids, read a report of a case of puerperal convulsions of several days' continuance, with final recovery, treated principally with *tr. veratti viridis* and morphia hypodermically.

Dr. E. M. Keyes, of Walker, reported several cases of gonorrhœa successfully treated with fluid extract of kava kava.

On motion, the Secretary was instructed to send the minutes to the MEDICAL AND SURGICAL REPORTER for publication. Adjourned.

J. M. ARMSTRONG, President.

EDWIN BURD, Secretary.

EDITORIAL DEPARTMENT.

PERISCOPE.

How To Render Septic Wounds Aseptic.

The proper measures to render foul wounds aseptic are well illustrated in a recent lecture of Prof. von Nussbaum, of Munich, translated in the Edinburgh *Medical Journal*. They are so instructive that we quote them fully:—

In July last a student received a sabre-cut of the head in a duel, which ran parallel to the sagittal suture, to the left of it, and was eleven centimetres long. The bone was denuded and laid bare, so that it seemed like a fissure. One of his friends, a military surgeon, had cut away some of the hair, washed off the blood, and dressed the wound with olive oil and Brun's wadding. For five days it went on very well. The patient then wished to get up, and asked for more to eat. The surgeon, however, noticed a considerable swelling of the edges of the wound, and refused both requests. The next day, at 4 A.M., the patient had a severe rigor, and when the surgeon came he found some erysipelas, and the wound dry and smelling badly. The temperature, which had hitherto never been above 38° C., had now risen to 40.7° C., and the patient spoke in such an excited manner that one immediately suspected the onset of delirium. The patient's relatives, who had now arrived, insisted that he should be brought to my clinic. This required a few hours'

time to carry out, and when the patient came under my care, at 4 P.M., he was very delirious, had a temperature of 40.9° C., a small pulse of 130 per minute, and the erysipelas had spread over the whole scalp. There was here a probability of getting that unfortunate termination which was formerly so much dreaded in all cases of severe head-injury. Evidently there had been foul smelling pus pent up in the wound, and this had led to erysipelas. The septic condition of the secretions had affected the small blood-clots which lay in the deep crevices of the wound, and there could be little doubt that secondary meningitis was imminent. I confess that, having regard to the severity of the septic symptoms, I had very little hope of being able to bring about a favorable state of affairs; however, careful disinfection is always useful and can never do any harm, so I had the patient put under chloroform, then I cut away more of the hair from round about the wound, washed the surrounding parts, which were soiled with blood and discharge, with a five per cent. solution of carbolic acid, slit up the overlapping edges of the wound with the scissors to such an extent that the whole floor of the wound was laid bare. By this means I could evacuate some foul pus and blood-clots, the retention of which had doubtless been the cause of the erysipelas and the serious symptoms. I dipped a pad of Brun's wadding in an eight per cent. solution of chloride of zinc, and disinfected with this the

whole floor of the wound, carefully washing and syringing the exposed bare bone. I then put two drainage-tubes in the wound, sewed up the other parts with catgut sutures, injected some five per cent. carbolic lotion through the drainage-tubes, washed the surface of the skin with the same, and then put on a Lister's dressing, but without "protective," so that the gauze, which was soaked in two and a-half per cent. carbolic lotion, might come into direct contact with the secretions from the wound. I ordered the patient an acid drink and some light soup. He passed a quiet night, after getting a hypodermic injection of two cg. acetate of morphia. The next morning I was as much astonished as pleased when the patient, perfectly conscious, held out his hand and quietly wished me "Good morning." The delirium was quite gone, the temperature 38° C., and the pulse 98 per minute. Everything had changed so much for the better that we hoped the meningitis had been warded off. As the dressings had shifted a little, I changed them under the steam-spray, and found then that the wound was in a satisfactory condition. The erysipelas was quite gone, and there was no retention of the discharge. The temperature soon fell still further, and in sixteen days after his admission to my clinic the happy patient left for his home, having only a strip of plaster, about the breadth of a finger, upon the cicatrix on his scalp.

As a second illustration I may relate a case which was recently under my care. A servant-girl was pushed from her chair in jest, and fell so heavily that she fractured her radius and ulna, and the ends of the bones protruded through the skin. A practitioner who lived near put adhesive plaster upon the wound and bound up the arm in splints in the ordinary way; as it bled rather freely during the night, he sprinkled some styptic powder over the plaster. On the third day the arm was so much swollen, and there were so many blue and green blebs upon it, that the practitioner was afraid to go on treating the case, and called in another medical man, as the patient was strongly opposed to going into hospital. The surgeon who was called in requested to have a consultation with me, and spoke of the possibility of amputation being necessary. The mention of amputation caused great consternation in the house, for the foolish joke had been perpetrated by the son of the girl's master.

When I saw the patient the arm was greatly swollen and tense, the wound had a grayish surface, and was covered with foul smelling pus; round about it there were also numerous blebs of different sizes. The small ones—about as large as a pin's head—were like transparent yellow glassy beads, and were very numerous, and lying close together; the larger ones were black and blue in color, and filled with blood-tinged serum. There was high fever. The patient's countenance was of a yellowish-brown color, and the morning temperature was as high as 40.3° C. Under these circumstances I could not say positively that the arm might be saved; but, on account of the patient's youth and good constitution, I said that with the utmost care a good result might probably be obtained. Both the

patient and her medical attendant gave me full permission to do what I thought proper.

I first put the patient under the influence of an anaesthetic. I then shaved the whole arm, washed it with a five per cent. carbolic lotion, and let two steam sprays play upon the wound. I made a semi circular incision, which extended about half round the arm, avoiding nerves, etc., and by this means exposed the fragments of the broken bones lying at the bottom of the wound. The arm could then be bent in the middle, so that it was possible to have the floor of the wound thoroughly washed and purified with five per cent. carbolic lotion. (In cases where there is no bleeding, but only foul pus, I prefer to use the eight per cent. solution of chloride of zinc.) I next ligatured some bleeding vessels, cut off the sharp ends of the broken bones, syringed and washed everything clean, put short drainage tubes in each corner of the wound, and bandaged the arm on a splint, leaving the widely-gaping wound uncovered; over this wound—which was about half the size of an amputation wound—I put some absorptive gauze, and arranged that a three per cent. carbolic lotion should drop upon this day and night, the drops following each other so rapidly that they formed really a fine continuous stream. In twenty-four hours about twenty-eight litres of this lotion passed over the arm. After two days, however, the wound became free from odor, and the temperature fell to 37.7° C.— 38.2° C., so I diminished the irrigation considerably, and allowed from sixteen to eighteen litres of carbolic lotion to flow over the wound in the twenty four hours. In a few days the wound looked so well that an ordinary Lister's dressing was applied, and the wound soon healed up like a fresh injury.

On Disease of the Prostate.

At a recent meeting of the Harveian Society of London, Mr. Teevan read a paper on interference with micturition, the result of prostatic disease. It might be caused by, 1, acute inflammation; 2, chronic inflammation; 3, various alterations in bulk of the lobes of the organ; 4, stone descending into, or originating in the prostate; 5, malignant disease. All the above might, in some way or other, modify the act of micturition. Acute inflammation might be caused by the extension of gonorrhœal trouble, powerful injections, or tubercular and pyæmic deposits. If the patient could not micturate, an india-rubber catheter ought to be at once introduced, as it was the instrument which caused the least irritation, but it was not always possible to pass it in such cases, and if it failed a soft olivey catheter was indicated. By clearing out the rectum, filling it with ice, and placing half a dozen leeches on the perineum, the inflammation could usually be reduced, and the further employment of the catheter rendered unnecessary. If abscess formed it generally burst into the urethra, but if fluctuation could be detected in the rectum or perineum the knife ought to be at once applied. Chronic inflammation might follow gonorrhœa, or be caused by rectal trouble. The dull aching pain in the perineum and anus,

associated with increased frequency of urination, was very wearying to a patient. The application of a few drops of a solution of sulphate of copper, (five to ten grains to the ounce) to the prostatic urethra twice a week, would usually relieve the symptoms. If it failed, repeated blisters of the perineum would generally effect a cure. Alterations in size of the different lobes of the prostate. It was of the utmost importance to detect prostatic obstruction early, for if it were not attended to, the bladder would become hypertrophied and fasciculated, and the patient condemned to a life of misery. The earliest symptoms of commencing trouble were nocturnal frequency of micturition and the tendency of the urine to fall vertically between the patient's legs instead of being ejected in the arc of a circle. The sufferer might be taught to relieve his bladder night and morning, with a soft olivary catheter. It could not be too strongly borne in mind that dribbling of urine in middle-aged and old men meant retention, not incontinence. If the practitioner were armed with a bougie catheter it was not necessary, in cases of retention from prostatic obstruction, to diagnose which particular lobe of the organ was enlarged, for the bougie would mount the hypertrophied median lobe, or would pass around the projecting lateral lobe. The catheter could then be screwed on to the bougie and made to follow the latter into the bladder, and so relieve the patient. A stone descending from the bladder might be arrested in the prostate, or have originated there. It was very important to make an accurate diagnosis, for cases have come under his notice which had been treated for retention from stricture where the obstruction was a stone in the prostate. If a metal instrument were not used the mistake might easily occur, for the sensation transmitted by the passage of a soft catheter through a urethra narrowed by a calculus in it, was almost similar to that conveyed by the instrument when introduced through a tight stricture. When a man who, up to the time of the stoppage, had always been able to pass a full stream of urine, was seized with retention, without any premonitory symptoms, the impaction of a stone in the prostatic urethra ought to be suspected. When a calculus was arrested in the deeper portion of the urethra it ought to be pushed back into the bladder with a wax bougie, and then crushed. Malignant disease of the prostate was, fortunately, very rare. It might not be attended by any pain, and could usually be detected by rectal examination, disclosing the existence of a hard nodule on one side of the prostate, and not on the other. This want of symmetry was a most valuable diagnostic sign. The few cases which had come under his notice were all of the scirrhouss kind.

Treatment of High Arterial Tension.

At a recent meeting of the Glasgow Southern Medical Society, Professor McCall Anderson read a paper on Deviations from the Normal Arterial Tension associated with Certain Diseases of the Kidneys and Heart, and their Treatment. In estimating the state of tension of the pulse, which is full, strong, resisting and prolonged when the

tension is high, and weak, compressible, and often dicrotic when it is low, he pointed out that we must not be guided by the volume of the pulse, which may be large or small in either case.

He remarked also that, in his opinion, the chief value of the sphygmograph at the bedside was to enable us to gauge the degree of tension, and to register from time to time its variations more accurately than can be done by the finger.

High tension is to be relieved by removing the cause. Thus, in acute Bright's disease, it is principally due to diminished excretion of water; and, accordingly, if we succeed in inducing profuse urination, the high tension, as well as the other symptoms, disappear. This was illustrated by the case of a little boy, st. 14, whose only treatment consisted in the administration of oceans of skimmed milk, which, in two days, raised the amount of urine passed from 40 up to 224 ounces, and within a week the high tension and all the other symptoms had disappeared.

In chronic Bright's disease, on the other hand, there is often excessive urination, and yet the tension is high, the cause being the stop-cock action of the arterioles throughout the system on the one hand, and the over-action of the frequently hypertrophied left ventricle on the other. In too many cases, unfortunately, we are unable to remove the chronic disease of the kidney, but yet we can often diminish the tension, and thus may avert threatened complications—cerebral hemorrhage, for example. This is to be done—

1st. By stimulating the organs of excretion.

2d. By the administration of medicines which directly lower the tension.

The latter are of use, not only with the view of controlling kidney, but also heart complications, such as angina pectoris. The medicines are: 1st, *nitrite of amyl*, which is usually given by inhalation, three or four drops being put upon a handkerchief, and which, as is now well known, lowers the tension and controls angina pectoris. Illustrations were also given of its influence in arresting threatened attacks of ague and hysterical epilepsy.

2d. *Nitro-glycerine*, which acts more slowly than the former, five or six minutes elapsing before its physiological action is at its height, but which is probably more permanently beneficial. The influence of this drug was well illustrated by the case of a gentleman who had angina pectoris as a complication of fatty heart, and who received permanent benefit from it. The preparation used was a 1 per cent. solution in spirit; the dose being from one, cautiously increased up to fifteen drops every three hours; but latterly the angina could be controlled by a dose of two or three drops when a paroxysm threatened.

On the other hand, when the tension is unduly low, this may sometimes be rectified. 1st, by support and stimulation; and 2d, by the administration of medicines which directly raise the tension. These are *digitalis*, whose influence in this respect is so well known as not to require further mention, and *casca*.

A very striking illustration of the influence of this drug was given: That of a patient with dilatation of the heart, following upon aortic valve disease, and which had led to passive congestion of the lungs, liver and kidneys, with very

scanty urination, albuminuria, and extreme dropsy. The preparation used was the tincture of the strength of 1 to 10, and the dose was from 5 to 10 minims three times a day. Within a week all the symptoms resulting from failure of the heart's action had disappeared.

In concluding, Dr. Anderson pointed out that we had in nitro-glycerine a valuable rival to nitrite of amyl, and the tincture of cascara stood in the same relation to tincture of digitalis.

Treatment of Ozæna.

M. Terullon writes on this subject, in the *Bull. Gen. de Thérapeutique*, April :—

True ozæna, he says, includes those cases in which there is no osteal or periosteal lesion; in the mucous membrane, when denuded of adherent crusts, is found to be almost intact, only slightly reddened, scarcely inflamed, thinned, and less vascular or velvety than usual. This thinning of the membrane is characteristic, and can be detected by the probe, which seems to come almost into direct contact with the bone. The nose is often blocked by greenish, fetid crusts, which the patient has great difficulty in expelling by blowing. These crusts may reach down to the pharynx and press on the soft palate. The patient sleeps with the mouth open, suffers constantly from headache, nausea, distaste for food, and prolonged malaise. The manner in which this condition is developed is revealed on making a rhinoscopic examination. The nasal cavities are invariably found to be enormously dilated, forming a veritable antrum with no central constriction; the septum is visible along its whole extent, and sometimes also a portion of the posterior pharyngeal wall and the pharyngeal orifice of the Eustachian tube—a state of matter very different from that which characterizes the normal condition. The lower turbinated bone is usually also rudimentary. These features suggested to Zaufal the theory which is now very generally accepted regarding ozæna. According to him, inspiration takes little part in the removal of mucus from the nose; expiration, on the contrary, sweeps it horizontally forward to a more sensitive portion of the mucous membrane, where its presence excites the desire to clear the nose of obstruction. The inferior turbinated bone, besides narrowing the passage, accelerates and directs the current of air; when these bones are small and rudimentary, and the nasal cavities abnormally wide, the current of air has not sufficient force to carry the mucous secretion forward, so that the discharge accumulates, dries into crusts, and decomposes—whence the odor described. So long as the accumulation is present the odor persists; when that is cleared away the odor disappears for a time. Zaufal's views are confirmed by what happens after the removal of large nasal polypi, when it is not unusual to have slight ozæna for a time, till the nares resume their normal volume.

The method of treatment which M. Terrillon advocates, and describes as very successful, is based on the foregoing theory of origin of the affection. It consists first of thorough irrigation of the nasal cavities, with a weak solution of common salt, once every two or three days, or as

often as twice a day, if necessary; and secondly, the insertion of a plug of cotton wool into each nostril, in such a way as to give the nares somewhat their normal conformation internally, and thus to remove the cause of the decomposition of the mucus. The cotton should be wrapped round the end of a knitting needle, so as to form a plug the length of the nasal fossa, i. e., about 5-6 centimetres long; it should not be thicker than a penholder. The plug is then passed into the nose, being directed along its outer wall, pointing towards the outer angle of the eye, and thus taking the place of the inferior turbinated bone. When the plug is in place the needle is easily withdrawn. The plug should be renewed every two or three days, and is easily expelled by irrigation. The patient soon learns to apply it himself. Soon after, the mucus which comes from the nose will be found to be liquid, not fetid, and in its usual normal condition. This method of treatment, so long as it is faithfully carried out, keeps the affection effectually in check; but if it be neglected, even for a short time, the ozæna returns. As a rule, patients will not object to the trouble which it involves, as the maneuver is simple and easy, and the infirmity from which it relieves them is a very disagreeable one, both to themselves and their neighbors.

Treatment of Incontinence of Urine in Women.

Dr. J. Milne Chapman, M.B., M.R.C.S., Assistant to the Physician for Diseases of Women, Royal Infirmary, Edinburgh, read before the Edinburgh Obstetrical Society a paper, given in the Edinburgh *Medical Journal*, containing the following case :—

Mrs. C., age fifty-eight, complained of frequent and painful micturition, which had lasted three and a half years. When she first took ill a doctor told her she had inflammation of the bladder and some urethral affection (caruncle?), for both of which he treated her. On September 30th, 1880, it was found that she could only retain water half an hour. The pudenda were reddened, as was also the whole vagina. The urethra was somewhat gaping at its outlet. There was considerable pain evinced on rubbing the two walls of the bladder over one another, or on introducing the sound into the viscus. The urine was turbid, acid, and contained pus cells, bladder epithelium, and some oxalates. The urethra was dilated by the finger, with the result of increasing the bladder's retaining limit to one and a half hour. At the same time *nux vomica* and *uva ursi* were given, and the vaginitis treated by sedative applications. The good effects of the dilatation disappeared in about three weeks, and it was then repeated, but soon she again relapsed into her former condition, minus, however, the pain and the presence of pus in the urine. The urethra was examined by the endoscope, and a slight redness was noticed. Iodoform bougies were used. The condition of the bladder wall, as seen by the endoscope, was normal, and now (November 8th) her only trouble was that every hour, day and night, she had to empty her bladder. The total quantity of urine passed was fifty ounces, which gave little more than two ounces as the amount at each micturition. The sound

passed into the bladder three inches from the external meatus, and it was found that it could only be pushed half an inch further, and that thus pain was caused. It occurred to me that gradual forcible dilatation of the bladder might relieve the patient, and, with Dr. Angus Macdonald's permission, I proceeded to submit this idea to trial. The bladder was distended with warm two-per-cent. carbolic solution, and the quantity used measured, and found to be four ounces. Any attempt to inject more caused the most intense pain, and the resistance offered was great, as could be felt by the difficulty experienced in compressing the ball of the syringe. From this date the bladder was filled to distension daily, the injection being stopped when the patient's pain became great, and when resistance reached a high point. The apparatus used was a Higginson's syringe attached to an ordinary catheter, care being taken to prevent the access of air to the bladder. Each day there was a gradual increase in the amount injected, of from a drachm to an ounce. On two or three occasions the fluid as it returned was tinged with blood, but no harm ensued. On December 20th she was discharged in the following condition: Instead of micturating every hour, she had only to get up once or twice during the night, and by day she could retain water so well as not to be inconvenienced. Sixteen ounces could now be injected into the bladder, and less pain was thereby caused than formerly, when four ounces was the limit. The urine was normal in all respects. Two months later she reported herself as being still as well as when she left hospital.

It will be seen from this case that the woman had a cystitis, with frequency of micturition, which latter remained after the former was cured; that any indication there was for further treatment was attended to either medicinally, topically, or by operation, but that still the frequent micturition continued; that the bladder was then found smaller than normal, both by measurement with the sound, and by the much more certain method of measuring its capacity, and that this capacity was increased fourfold by what may be called *slow operative dilatation of the bladder*, and that the results were in all respects satisfactory.

REVIEWS AND BOOK NOTICES.

BOOK NOTICES.

Proceedings of the Nebraska State Medical Society, ninth, tenth, eleventh, and twelfth Annual Sessions. Omaha, Neb., Printing and Publishing House, 1880, pp. 297.

The Nebraska Society shows signs of rapid progress, as evinced by the fact that while the proceedings of the ninth annual session cover barely fifteen pages, the twelfth takes up more than two-thirds of the entire volume. In the address of the retiring President, Dr. E. M. Whitten, delivered at the eleventh

annual meeting, we find many excellent suggestions dressed up in the garb of wit and humor. He deplores the professional mania which "has spoiled many a good mechanic, done injustice to the hod and anvil, cheated the goose and spade out of their rights, and committed downright fraud and swindle on the corn and potato fields." He pitches into the religious papers for aiding in the practice of quackery and fraud, and exposes various systems of charlatanery; nor does he neglect to minister to the aesthetic wants of the members present, for we find on page 80 an illustration copied from a painting, representing Pierius' cure for the sting of an asp, which was exhibited. This cure consisted in taking a brisk ride on an ass, with the face to the tail, holding on to that appendage with both hands, when it is said that the pain will be transmitted from the patient to the ass; and certainly, in the illustration, the latter shows signs of having received a sting somewhere, while the rider looks as if he had other things to think about besides such trifles as the sting of an asp. The papers read at the twelfth session were both numerous and important, and embraced a great variety of subjects, and some of the members showed a considerable amount of enthusiasm and activity by presenting from two to five papers each.

A Medical Formulary, Based on the United States and British Pharmacopœias, together with numerous French, German and Unofficial Preparations. By Laurence Johnson, A. M., M.D., Lecturer on Medical Botany, Medical Department of the University of the City of New York, etc., etc. New York: William Wood & Co., 27 Great Jones St., 1881. Cloth, 8vo. pp. 402.

This constitutes the volume for May, of Wood's Library of Standard Medical Authors. Practitioners will find it a convenient book of reference with regard to drugs and pharmaceutical preparations, the plants and minerals ordinarily used in medicine being alphabetically arranged according to their Latin names and the various officinal and unofficial formulæ, with doses given below. Although the work will thus be found, to a certain extent, useful, the rapid multiplication of books of this kind is to be deplored, and it is to be hoped that physicians with literary talents will, in the future, devote their time and their energies more to original work, and not waste them on the constant reproduction of endless formulæ, the effect of which is to confuse rather than to simplify and render easy the practice of medicine.

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THE DIMINISHED VALUE OF VACCINATION.

It is an ugly fact that after fourscore years and more of vaccination smallpox is not yet stamped out. Further than that, its periodical visitations are not any rarer nor less destructive than they were half a century ago; some say they are more so. Last winter, in this city, the deaths from this disease averaged about fifty weekly, for month after month; in London, where vaccination is compulsory, the cases in the first week of June were more than 1500; it has only been a few years since Paris was visited by a widely fatal epidemic.

Such facts, and we refer to but a very few of them, have given medical men serious thought. That vaccination properly performed, with active virus and with sufficient frequency, is a sufficient preventive, need not be questioned. The error must lie in its inefficient performance.

This may arise through several causes. Persons may not be vaccinated at all; the virus may have degenerated; revaccination may be abso-

lutely required; the virus may be active but insufficient in quantity to impress the system.

A valuable contribution to this subject was made in the *Fortnightly Review*, by Dr. CARMERON, of Glasgow. He argues that vaccine matter in common use in England and Scotland must have greatly degenerated, or else, for some other reason, vaccination cannot have been well performed. He shows that *ten times* as many persons take smallpox after vaccination now, than in 1830; and that of vaccinated children under ten years, *five times* as many died in the period 1870-79, than in the period 1824-51. Some of the conclusions he considers established beyond doubt are:—

1. That the protection against smallpox afforded by the vaccine lymph in use in this country, though still great, has become much less than it was when the lymph had undergone comparatively but a few transmissions through the human subject.

2. That the number of cases of smallpox occurring now per million of vaccinated persons is very much greater than that shown in the records of vaccinated populations in the earlier part of the century.

3. That the death-rate in recorded cases of post-vaccinal smallpox has progressively increased in all cases, with and without marks, from 1.75 per cent. in 1819-35 to over 10 per cent. in 1870-9, and in cases with marks from 6.9 per cent. in 1836-51 to 9.2 per cent. in 1870-9.

4. That this increase in mortality has been most remarkable in the best vaccinated classes of cases, the death-rate in cases with three or more cicatrices in 1870-9 being twice what it was in 1852-67; and the death-rate in cases with three or more good cicatrices in 1876-9 being thrice what it was in 1852-67.

5. That the proportion in which vaccinated children are attacked and cut off by smallpox has alarmingly increased, being many times greater during the last decade than it was thirty or forty years earlier.

Some of the London surgeons claim that much of this mortality is owing to the inertness of the virus used, and the neglect of revaccination. A letter from one of these, in the *British Medical Journal*, seems to show the highly unprotected state of the adult population against smallpox, owing to the neglect of revaccination. In eighty-one cases in which persons had not been revaccinated since the first vaccination in infancy, 90 per cent. of the revaccination with calf-lymph proved successful; showing that in 90 per cent. of those persons the protection afforded during

early life had worn out, and the necessary protection to be obtained by revaccination after the age of fifteen had been neglected, until the present alarm, owing to the epidemic prevalence of smallpox, had reminded them of the extreme danger of such neglect. As a matter of fact, it is probably essential, as a protection of the population from smallpox, that each individual should be successfully revaccinated after the age of fifteen, although such a large percentage of "takes" seems to prove that the virus first used was largely inert.

In the opinion of many, both in this country and Europe, both vaccination and revaccination should be made compulsory. A long discussion of the question recently took place at the Academy of Medicine at Paris. A committee appointed to consider the subject submitted two resolutions. The first was that "the Academy believes that it is urgent, and of great public importance, that vaccination should be rendered obligatory," which was carried by the votes of forty-six of the sixty-seven members present, nineteen voting against it and two remaining neutral. A large majority also carried the second resolution: "Revaccination should be encouraged in every possible manner, and even insisted upon by rules laid down by the different administrations, whenever this is possible, and especially by municipal bodies when the medical and sanitary officers have indicated the necessity of such obligation."

BARON LARREY, M. JULES GUERIN, and others, opposed compulsion, as "hostile to the prerogatives of the medical profession and to civic liberty."

It is possible that vaccination as a preventive measure is wearing out, and with every precaution will afford in the future less security than in the past; but it is more likely that the long humanized vaccine virus has exhausted its prophylactic virtues, and that we must have recourse to bovine virus for both vaccination and revaccination. This is rapidly becoming recognized in this country and England, as it has long been in Belgium and elsewhere.

NOTES ON ANTHROPOLOGICAL STUDIES.

In reviewing the later achievements of anthropological study, the reader will not fail to be impressed with the reaction it manifests against the tyranny of scientific dogmatism. The more clearly the comparative anatomy of man and the anthropoid apes has been studied, the more closely does it appear that the differences between them are great and fundamental. The popular notions of evolution and so-called "Darwinism," by which the "development of man from the monkey" are so glibly explained, meet with the strongest refutation in the articles of VON BISCHOFF on the anatomy of the gorilla, and of ECKER and VIRCHOW on the inner structure of the skulls and brains of anthropoid apes, etc.

So, too, the singular instances of men with a caudal appendage, hastily supposed to be a reversion to a remote ancestral type of tailed men, have proved, on proper examination, to be nothing more than a local growth, strictly pathological in character, and thus in no way to be regarded as a sign of "atavism."

These opinions are repeatedly emphasized in the *Verhandlungen* of the last meeting of the German Society of Anthropology and Ethnology, which have recently reached us. It is quite evident that the members foresee that the tyranny of a scientific dogma may be just as obtrusive as that of a theological one; and having gained freedom from the latter they are not going to accept the former. Such, indeed, is the only safe rule of inductive research.

The question of the size and height of men receives a careful study in these *Verhandlungen*, from Herr RANKE and others. It has been supposed by some that the earlier races were larger in size, by others that they were smaller than the people now occupying the same territory. RANKE demonstrates, from a large number of measurements, that man in this respect is a creature of the soil on which he lives; that certain localities produce on an average men of greater stature than other localities; and that as a general rule elevation above the sea level and mountainous regions are peopled by the larger races. The

quality and quantity of food have an effect, as well as the prevailing complexion, blonde races being somewhat larger than brunettes. No diminution in stature nor any increase can be proved to have taken place since even prehistoric times in Europe. The skeletons from the oldest tumuli occasionally show individuals to have reached the extraordinary height of two metres (6 ft. 6 in.), but as a rule are not in excess of the stature of the population now dwelling on the same soil.

Another paper in the same direction was by HERR KOLLMAN, on the facial angle. He divided this craniological characteristic into prognathism, where the angle is 76°-83°; mesognathism, 83°-90°, and orthognathism, 90°-97°. From numerous measurements of various ethnic groups he finds that prognathism appears both in cultivated and savage people, and in modern and pre historic times. As a race characteristic it only has ethnological value when the proportion of the total of prognathism in a race is compared with the total of mesognathism and orthognathism. Thus in the dolicocephalic races of dark skin, prognathism is common, while among the dolicocephali of light skin it is rare.

HERR KOLLMAN indulges in some game-making at craniology as it is now understood, and says that as in a collection of local skulls made at Göttingen fine types of negro and Indian crania may be picked out, so if some dark-skinned anatomist on Lake Tanganyika were to collect the crania of fellow citizens of Central Africa, he would find among them first-class types of Anglo-Saxon, Bohemian and Frankish skulls, all derived from the natives of some village of Waganda.

NOTES AND COMMENTS.

Therapeutic Notes.

SPERGULARIA MEDIA IN GONORRHOEAL CYSTITIS.

In *La Cronica Medica* Dr. Gimeno describes a very severe and obstinate case of blenorragic cysto-nephritis, of six months' standing, rapidly relieved by pills of the extract of *Spergularia media*. Without other medication the patient entirely recovered.

BORACIC ACID IN VESICAL CATARRH.

Prof. Rosenthal, of Vienna (*Wiener Med. Blätter*), has derived decided benefit from boracic acid in various forms of catarrh of the bladder.

R.	Boracic acid, pure,	1 part
	Warm water,	20 parts
	Hot glycerine,	5 parts. M.

This mixture will keep well for months, and may be given in teaspoonful doses once or oftener daily, in a glass of water.

CAUTERIZATION OF THE EAR FOR SCIATICA.

The curious fact that cauterization of the helix of the ear is a promptly curative procedure in many cases of sciatica of peripheral origin is again illustrated by a number of cases collected in *Schmidt's Jahrbücher*, No. 2, 1881. The cauterization of the helix of the ear of the same side as the painful limb was accomplished with Vienna paste.

LIME WATER IN GONORRHOEA.

As an abortant of the inflammatory stage of acute gonorrhœa Dr. Küchenmeister recommends:—

R.	Lime water,	1 part
	Distilled water,	4 parts,

For an injection, to be used every hour or two.

From his account (in the *Deutsche Med. Wocheuschrift*) it does not appear that the course of the disease was shortened, but only the inflammatory symptoms lessened.

Propositions About Venesection.

The propriety of venesection as a therapeutic measure is securing renewed attention in England, as well as in this country. Among recent articles, we note one by Mr. T. M. Dolan, F.R.C.S., in the *Medical Press and Circular*, May 18th. He sums up his conclusions in the following propositions:—

1. Venesection has no direct influence over inflammation, external or internal.

2. Venesection is useless, in the case of all external inflammations.

3. Venesection is of use in these inflammations, where the cardiac and respiratory functions are interfered with.

4. Local bleeding in external inflammations is most useful, its effect is patent.

5. Local bleeding in internal inflammations, where there is a direct capillary circulation between the skin and inflamed part, is of manifest service.

6. The benefit of local bleeding, when there are not such conditions, is neither clear nor positively ascertained.

These propositions express fairly well the true

position of venesection in therapeutics, although, of course, they are all subject to exceptions in particular cases.

Mr. Dolan quotes, with approval, the following words of Dr. Markham, on the subject of general bleeding:—

"Is it credible that a remedy which, through evil report and through good report, has steadily held its own in the catalogue of curative agencies, from the days of Hippocrates to our own, can all at once have ceased to be of service to humanity? Must we believe that all the great minds who, through the long ages of past medicine, have resorted to this remedy, have been using it under a delusion? Surely, the very fact of the antiquity of the remedy, its universality, and its persistence during all times as a curative measure, is strong *a priori* evidence of its possessing value and excellence as such."

Loss of the Sense of Smell, through Over Stimulation.

The sense of smell is very easily lessened and may be wholly lost, through excessive stimulation. In a recent lecture, Dr. Julius Althaus gives some curious examples:—

It is related of Marshal Richelieu, that he habitually lived in an atmosphere of the strongest scents, which made his visitors quite ill, while he was himself ultimately quite unaware of them. Scavengers, dustmen, and tallow boilers become after a time insensible to the disgusting odors surrounding them, anatomists to the smell of the dissecting-room, and patients suffering from cancer to the emanations from their sores. But even true anosmia, or insensibility to *any* odorous substances, may thus be produced. Graves has recorded the case of a captain, who, in the Irish rebellion of 1798, had to superintend the work of emptying out an old cesspool which was filled with the offscourings of the market and all manner of filth, and on the bottom of which five hundred pikes were reported to have been concealed, and were actually discovered. He was all this time exposed to most abominable effluvia, and suffered greatly from the stench. Next day he found that he had entirely lost his smell, and thirty-six years afterward, when Graves examined him, the anosmia still persisted. A similar thing happened to a surgeon at Bremen, in Germany, who had to make the post-mortem examination of an archbishop who had died of cancer of the stomach. The fearful emanations arising from the body of this dignitary of the church destroyed the surgeon's smell for life.

Trade Rights in Pharmaceuticals.

The common law of England, prior to 1875, gave manufacturers a "trade right" to any fancy name, private mark, or peculiar device they adopted. From January 1st, 1876, an Act of Parliament decreed that all trade-marks should be registered. A similar law prevails in this country, and applies to medicines and all sorts of pharmaceutical and hygienic preparations. That the system has great commercial value is granted on all hands. Whether it is equally desirable in medical and pharmaceutical ethics is another question. Mr. Edmund Johnson, F.S.S., of London, says, in a recent article (*Chemist and Druggist*, May 14):—

"The manufacturer, by the registration of a trade-mark, can secure to himself, his successor and assigns, the absolute and exclusive right to use that mark in connection with his goods, and to identify any particular class of them sold with that mark as being of an unvarying and standard degree of excellence. The public, on the other hand, learn to look upon the manufacturer's trade-mark as a guarantee of such standard degree, from which they know he cannot depart, except under penalty of losing both credit and custom. Thus, the trade-mark affords security to the purchaser, and makes honesty the best policy on the part of the manufacturer."

If this reasoning is correct, it is not obvious why it should not apply to a pharmaceutical chemist as well as to other manufacturers. As the matter was discussed at the last meeting of the American Medical Association, it becomes one of the "questions of the day," and we should be glad to publish expressions of opinion upon it.

Nap' tha Oil in Affections of the Skin.

Prof. Kaposi read a paper at the Vienna Medical Society (*Wien. Med. Zeit.*, May 10th), in which he stated that he had employed this substance (the B naphtha oil, largely used by color-makers) as an advantageous substitute for tar, being as useful, while not producing the same disagreeable effects as regards color, smell, or spoiling linen. Hitherto he has used it only externally, but from its rapid absorption and excretion it may be used, probably with good effect, internally. How far this is the case, and to what diseases it is especially applicable, further trial must prove. At present, speaking from seventy-six cases, Kaposi has found it a useful remedy. Thus, in scabies, a ten per cent. simple ointment followed by a compound ointment of ten parts of naphtha oil, fifty of green soap, and one hundred of lard, will effect a cure in two applications. In eczema, as with tar, the

exact time of application is difficult to choose, but if this be well chosen, the itching is allayed and a slow desquamation occurs. In psoriasis a ten per cent. ointment produces the same effect as a chrysorabin ointment, without the discoloration caused by this. The ointment has also been used with good effect in ichthyosis, seborrhœa, and pityriasis versicolor; but it is of no avail in lupus vulgaris; while a case of lupus erythematous was advantageously treated. The naphtha oil is easily soluble in alcohol and in oils or fats, but water requires equal parts of alcohol to be added to effect a solution.

Treatment of Chronic Ulcers of the Legs.

The elastic bandage has been well received as a means of treating old ulcers of the legs. But Dr. Dawosky, of Celle, who has charge of a large hospital there, says it has disappointed him (*Memorabilien*, No. 3, 1881). He had recourse to another plan with astonishingly fine results. He takes his patient, has him well bathed and puts him to bed, just as if he had a fracture of the leg, absolutely forbidding him to rise. A hot, aromatic fomentation of an infusion of chamomile, lavender, rosemary or calamus, with an equal part of a five per cent. solution of carbolic acid, is constantly maintained by dropping on flannels or lint covering the ulcer. The heat of the fluid is increased as the patient becomes accustomed to it. The effect is "magical." In twenty-four hours a decided change is visible. The process of regeneration begins at once, the foul odor disappears, and healthy granulations soon spring up. When this point is reached, the carbolic acid may be omitted, and merely the aromatic infusion continued.

No internal medicine whatever is needed, merely good and abundant nourishment. When the patients leave, he recommends them to continue to bathe the part with the following lotion:—

R.	Olei caryophylli,	gtt. xxx
	Liq. ammon. aromat.,	$\frac{2}{3}$
	Spt. juniperi,	3 iv. M.

The Value of Quinia in Connection with Sedatives

Dr. Laudon Carter Grey, according to *Allgemeine Medicinische Central-Zeitung*, May 7th, 1881, regards the administration of bromides alone, in the treatment of epilepsy, especially if the patient be in an asthenic condition, as not only of doubtful value, but even as dangerous. In those cases he either combines them with quinia, or gives the latter after having obtained the characteristic effects of the bromides. His

usual plan is to give the bromides of potassium and sodium combined, in doses of about ten grains of the former to five of the latter, until the symptoms of bromism are produced, and then follow up the treatment with from two to three grains of quinia twice or three times daily. When large doses of the bromides are needed he always combines them with quinia from the first, and he finds that the symptoms of bromism are thus retarded. In the treatment of other diseases, as neuralgia, headache, and insomnia, the therapeutic effects of the bromides seemed likewise to be increased by the addition of quinia, and the same is, according to the observations of the author, true with regard to the use of other sedatives, as *hyoscyamus* and *belladonna*.

Albuminuria in Typhoid Fever.

M. Bouchard, at a recent meeting of the Soc. de Biologie, stated that in certain cases the coagulum of albumen, under the influence of heat, becomes retracted, and that in such cases there is generally renal alteration. Albuminous urine in which the coagulum does not become retracted is generally observed in diseases which have high fever as a marked symptom, such as typhoid fever, erysipelas, pneumonia, acute rheumatism.

In typhoid fever the urine always contains albumen, and this albumen is often capable of retraction; there is in such case a veritable renal lesion analogous to that produced accidentally. In all such cases bacteriae are found in the urine, and sometimes also in the bullæ of ecthyma developed on the skin, or in abscesses developed during the course of the fever. M. Cornil, after anatomical observation of the kidneys in typhoid fever and the infectious diseases, concluded that the kidney is affected in these diseases, the cells are altered, there is a peculiar exudat in the tubuli. In typhoid fever bacteriae are found everywhere.

The Value of Belladonna in Intestinal Occlusion.

Dr. C. J. Edlefsen relates, in *Norsk Magazin for Lægevidenskaben*, the case of a ship carpenter, forty-eight years of age, who had always enjoyed previous good health, but during seven days had had no evacuation of the bowels, and during the past two days had vomited fecal matter. The abdomen was distended, and very tender to the touch, the extremities cold, pulse frequent, but feeble; no excrements in the rectum. Various laxatives and injections had been tried in vain. Patient was now ordered $\frac{2}{3}$ grain

of extract of belladonna every hour. After five doses (three grains) had been taken, the vomiting ceased, and after five more doses, the patient was relieved of about one gallon of thin, gruel-like excrements, after which he improved rapidly. There were no symptoms of belladonna poisoning, although six grains of the extract were given.

Contagious Carbuncle.

M. Drastor published recently, in the *Gazette Médicale*, an interesting observation:—

A patient, long a sufferer from chronic rheumatism, became exceedingly infirm, and finally an anthrax (carbuncle) developed in the gluteal region; she was a member of a religious order, and five sisters attended to the dressings. Two washed the ulcerations, and also the linen used in the dressings; they both suffered from very painful boils (furuncles) on the fingers and hands; two others had them on the forearm and face. The fifth did not suffer, because she had taken the precaution to place the bandages in water and allow them to soak, even then using a piece of wood in washing them. Several years previously, during the war, she had the care of a soldier with carbuncle, and had had sores on all the fingers; this experience led her to make use of these measures of precaution.

Mercurial Solution for Hypodermic Injections.

M. Yvon considers that a mercurial solution for injection should not exercise any local action, and should be absorbed as rapidly as possible. The last condition to be fulfilled is that the solution should not coagulate albumen. The following prescription gives a liquid which fulfills these conditions:—

R. Hydrarg. biniodid, 1 gram (gr. xv)
Potass. iodid, 1 gram (gr. xv)
Soda phosphat. (tribasic), 2 grams ($\frac{2}{3}$ ss)
Aqua dest. to 50 cc. (ad $\frac{2}{3}$ j-3 v).

This solution has a slight alkaline reaction, does not coagulate albumen, and if it is mixed in equal quantity with a concentrated solution of albumen it prevents its coagulation by heat.

A Ready Method for Hot Fomentations.

A patient lately informed me, says Dr. Richard Neale, in the *British Medical Journal*, of a method adopted in her family for many years, to prepare flannels for hot fomentation. The flannels are merely placed in the steamer of an ordinary steam kettle; they quickly become thoroughly permeated by the steam, when the kettle

is placed on the fire, and can be readily changed without any fear of scalded fingers during the attempt to wring them sufficiently dry, as in the ordinary method. She has also presented several steam kettles, especially made for the purpose, to one of the London hospitals.

Excision of the Mamma for Eczema.

In cases of long standing, obstinate eczema of the breast, Mr. George Lawson, of London, recommends excision of the breast, as so many of these cases develop diffused cancer. He has performed this operation as a prophylactic measure. Other London surgeons hesitate to advocate this procedure, although, in a recent debate, Mr. Lister acknowledged that he had himself known cancerous growths to follow intractable eczema.

Salicylate of Sodium as a Remedy in Nervous Headache.

Dr. Ehlschläger, of Danzig, says, in *Allgemeine Medicinische Central Zeitung*, May 7th, 1881, that he has found this remedy of great value in the treatment of nervous headache, especially if given in a dose of one gram (gr. xv) in the beginning of an attack. It usually produces drowsiness, and after a few hours the patient wakes up refreshed and free from pain. It, however, often fails to produce this effect in cases dependent on anaemia.

Abortive Treatment of Facial Erysipelas.

Drs. Nørregaard and Christie state, in *Norsk Magazin for Lægevidenskaben* that they have succeeded in preventing facial erysipelas from spreading by painting around the affected part a solid ring of collodion. It must be put on thick, when it will be found that the disease will spread to the ring, and there seemingly fight against this opposing barrier, the swollen parts hanging over the ring like a distended bag, but unable to pass it.

On Arsenic Poisoning from Wall Paper.

Drs. S. Jolin and E. Welander, of Sweden, both report, in *Hygiea*, cases of poisoning from wall paper, in which arsenic was found in the urine of the patients.

—At St. Mary's Hospital, Philadelphia, during the six months ending June 30th, 1881, there were treated, in the "Eye and Ear Department," 149 cases of diseases of the ear, and 352 cases of eye diseases.

CORRESPONDENCE.

Maternal Longings and their Influence on the Fœtus in Utero.

ED. MED. AND SURG. REPORTER:—

The old superstition, as old as humanity itself, almost, that strong maternal shocks or impressions during pregnancy may so affect the fœtus in utero as to produce some strange and monstrous deformities, is receiving valuable corroboration lately in the prominent medical journals of two hemispheres. The testimony elicited, however, is universally in favor of strange sights or sudden frights, as the result of dreams, or of actual experience. I have never yet seen anything written on the unfulfilled maternal longings or desires, so frequent in this condition, in their relation to the fœtus in utero. That these longings or desires may have the same effect upon the unborn child as the strange sights or sudden frights so voluminously written upon of late, there can be no possible doubt. In proof of this, I detail to you below such cases as have come under my personal observation lately, or from sources that can be implicitly relied upon.

Mrs. W., a small, stout blonde, with coal black hair and eyes, of an exceedingly nervous temperament, is a native of Philadelphia, thirty-eight or forty years of age, now the wife of a produce merchant of this city. Although having aborted just two or three months previously, she became pregnant again in May, 1880. While yet advanced in the first or second month of pregnancy she was seized, one day, with an uncontrollable desire for cherries, which she succeeded in getting only at the expense of a great deal of trouble and searching, the season being very early and the fruit exceedingly scarce. These cherries were nicely assorted and placed on a dish by a window, ready for the evening meal she had planned for herself, when the respite from her household duties would enhance the luxury. Unfortunately, they were discovered here by her son, a young man of sixteen or seventeen years of age, a perfect dare-devil, reckless, incorrigible youth, who had just come home for his dinner, and who, upon seeing such a delicious dish before him, devoured them all *instanter*, stones included, and disappeared, unnoticed. The discovery of her loss so preyed upon the grievously disappointed woman that she became almost inconsolable, it being impossible to replace the dish for several weeks thereafter. When her child was born, a female, on the fifth of January last, I attended her, and upon separating the cord, I noticed a small, red, rounded and elevated spot on the left temple of the child, partly covered by the hair, an exact *fac-simile* of a full ripe cherry! This has since become so perfect in development, that it can readily be recognized by any one.

This woman is the mother of five children. The first, a daughter, now a young lady of twenty-two or twenty-three years of age, was "marked" in a manner nearly similar. While the mother was in the seventh month of pregnancy with this daughter she was taken with a "hankering" for blackberries, wholly out of season and impossible

to procure. The result was, when the daughter came into existence, several months later, a bunch of blackberries was found depicted upon her left buttock, all well formed and distinct, which always became quite black when these berries were in season and dark brown at other times.

The third child of this woman, also a daughter, has a large red ball back of her left ear, as the result of a playful movement on the part of her father, during her mother's earlier months of pregnancy, in tossing a carpet-rag ball towards the mother, suddenly and unexpectedly, which struck her back of her left ear. Thus it will be seen that three out of the five children of this woman are "marked," all females, and all on the left side of their body, at that.

A truly wonderful tale, however, is related to me by a friend, in whom I have the utmost confidence for veracity, under whose personal observation it occurred some years ago. The scene is laid in Montgomery County, Maryland, and the personage a young bride of four or five months. The husband and wife had been passing the day with her father-in-law, when the younger members of the family brought in a nice string of perch, caught by them in a neighboring stream. Among these perch was a particularly fine one, much desired by the young woman. During the whole cleaning and frying process she felt a peculiar desire for this particular fish, and sat eyeing it with increasing voracity as the meal progressed. Being of a very bashful and reticent disposition, however, she failed to make her desire known, the other members of the family being unaware of anything unusual with her. When the meal had been placed upon the table, and all were in readiness to partake, the first to fork into the dish of fish was the old gentleman, her father in law, who bore off the prize, the identical fish she earnestly craved for. She told it long afterwards, that as the last morsel disappeared she involuntarily drew her hand across her lips to stay herself, so great was her desire. When her child was born, several months afterwards, a boy, across his upper lip, in very distinct outlines, was the figure of a fish, the impress being of a more intensely scarlet color than the general surface of the skin, and plainly recognizable by persons of the most meagre imagination.

The gentleman who related to me the above had a brother afflicted with a bunch of blackberries on the back of his neck, elevated a considerable fraction above the surface of the skin, the result of a caprice of his mother, under circumstances somewhat similar.

A more singular instance, however, than any related above, to my mind, occurred to an acquaintance of a friend of mine. The young lady, for such was the victim in this instance, bore a full-length impression of a perfectly shaped hair-switch upon her back, which extended from a point midway up her spine to the roots of the hair on her neck, necessitating the continual exercise of ingenuity, in the way of neck-gear, in order to conceal the deformity. This switch was of a dark brown color, while the color of her own hair was black. The result came about by an intense longing on the part of her mother for a particular switch of this color, seen in the collection of a hair pedler, but which

she was unable to buy for the want of means, the family being very poor and needy.

Peabody, Kan. CHARLES H. MILLER, M.D.

Fracture of both Ligamenta Patellæ.

ED. MED. AND SURG. REPORTER:—

During a professional life of twenty years I have met with several cases of fracture of the patella, but fracture of both ligamenta patellæ at the same time has never occurred in my practice but once; and according to Hamilton, Erichsen, Druit, Bryant, and others, it is of rather rare occurrence.

On December 13, 1880, I was called to see M. Flynn, a brittle-boned old fellow of fifty years, a section boss on the Central Railroad of Iowa. In carrying a part of a broken rail, while clearing the track for an approaching train, he made a misstep, the rail apparently striking the left knee, causing him to fall, and in attempting to save himself he fell backward upon his back, unable to rise until picked up by his men.

On examination I found both ligamenta patellæ broken. The left patella about three inches above and outward from the joint, which was considerably bruised and swollen. The right patella was about two inches upward and outward.

Assisted by Dr. Funkh, an under graduate, after some manipulation, the limbs were temporarily bandaged from above downward, and finally the dislocation replaced. Circular strips of plaster were applied, above and below the knees, with longitudinal and oblique strips connecting them. The limbs were elevated and placed upon splints, somewhat resembling Hamilton's. After a few hours the swelling of the left or bruised knee indicated the removal of all but four oblique strips, which seemed to partially retain the patella, while cold water and saline applications were continued until most of the inflammation had subsided, when the parts were again more particularly adjusted and strips applied. Not until about the eighth week other appliances were tried, to enable him to safely move about. But an old purple sore on the shin of the right leg, which would not tolerate any compression of blood vessels for even the simplest appliances, only requiring some exciting cause for an annual ulceration, as well as the sensitiveness of the left or bruised and more inflamed knee, delayed any effectual attempt to walk nearly another month. Then two circular pieces of strong pasteboard, one foot in length, were moistened and shaped behind the knee and over the adhesive straps, covering three-fourths of an inch of the circumference of the parts to which they were applied, and held in their place by other adhesive strips, thus allowing limited locomotion and bending of the joint, but not sufficient to refracture. Lastly, everything was removed and long, wide strips of surgeon's adhesive plaster were applied over and upon each side of each patella, which he continued to wear, even after able to work, as a support and preventive of a refracture. Not until nearly sixteen weeks did he resume his former position, but then apparently nearly as well as ever, and has lost no time since.

O. B. HARRIMAN, M.D.

Hampton, Iowa.

Hybridity and Fecundity.

ED. MED. AND SURG. REPORTER:—

The remarks going the round of the press to-day in regard to "The Relations of Hybrid Marriages to Sex, in Offspring and Fecundity," do not accord with my experience and observation. There is, possibly, no country where there is a greater admixture of the races than is found in Central America. There we find first the Aborigines, the Indians, then the Negroes, and the Caucasian and the Mongolian and Asiatic races. These foreigners have married the Indians as a rule, but we find quite as many males as females; indeed, it is said, that were it not for the numberless revolutions, that kill off many males yearly, they would be greatly in the majority; as it is the females rule as to numbers.

A Frenchman married a pure Indian woman in Tegucigalpa, and the result is three boys and one girl. Another, an Irishman, married an Indian, and they have five girls and two boys. In none of these admixtures, to my knowledge, is there an exclusively female offspring. We find the same in Canada, where many white women have married negroes, and their offspring is usually mixed. Among the Indians of Central America, where the virtue of a woman is not considered the greatest treasure she may possess, but rather an offspring from a passing foreigner, which passing foreigner is often led astray, the result is a mixed sex, the male offspring bearing the name of its father. Hence we find Smith and Jones, and Robinson, as well as many French and German names, and other nationalities, among these Indians.

Dr. Granville says that the female sex is caused by the arrest or repression of the force of development, and that the function of the male is not one of production, but of fecundation; then what difference should there result in the sex, whether the fecundating sperm be that of the Negro, or Chinaman, or the Caucasian ovum?

Detroit, Mich. E. E. RIOPEL, A.M., M.D.

Hybrid of Measles and Scarlet Fever.

ED. MED. AND SURG. REPORTER:—

Since the increased prevalence, latterly, of *rötheln*, or German measles, all facts bearing upon its nature are interesting. The question having been raised whether it is an entirely independent disease or a *hybrid* of scarlet fever and measles, it is important to determine whether it is possible for a combination of these two exanthemata to occur under circumstances which leave no doubt in regard to the nature of the case. Such an instance I believe to have been presented in the following case, in the practice of Dr. William E. Magruder, an experienced practitioner of Olney, Montgomery Co., Maryland. The narrative was forwarded by him at my request, and is respectfully offered for insertion in the REPORTER.

HENRY HARTSHORNE, M.D.

Germantown, July 2d, 1881.

On January 26th, 1876, I was called to see Miss S., aged fourteen, and found her suffering from an attack of scarlet fever of moderate

severity. The case pursued a typical course from the appearance of the eruption to desquamation, and was followed by no sequelæ.

On February 4th I was called to see an older sister, and a brother, aged eight. They had both been sick for several days, and as an eruption was just beginning to appear, I supposed they were cases of scarlet fever, notwithstanding cough, running at the nose, redness, and watering of the eyes.

When I called the next day, the mother told me that the eruption of these cases was not like that of the other, and such I found to be the case. That on the young lady was the well-marked eruption of measles; and I ascertained, then, that they had been exposed to the contagion of measles about two weeks previous to this.

On examining the boy I found the papillæ of the tongue very prominent through the coating, and it afterward presented the peculiar "strawberry appearance."

The fauces were red, almost livid, the tonsils and cervical glands much swollen, and he was suffering very much with earache. The eruption on his face and most of the surface of the body and limbs was clearly that of measles, but on the abdomen and some parts of the arms was the finer and more scarlet eruption of scarlatina. Wherever this finer eruption appeared there was considerable itching, and the little fellow would frequently ask to be rubbed with lard, to allay it.

The symptoms of measles predominated throughout. After the decline of the eruption all those parts which were covered with that of measles were rough, while on those on which that of scarlet fever appeared the cuticle came off in flakes. There were no sequelæ except an abscess in the ear.

Just twelve days from the commencement of the measles in these two, the young lady who had scarlet fever was taken with measles, which pursued the usual course of that disease.

NEWS AND MISCELLANY.

Official List of Changes of Stations and Duties of Medical Officers of the United States Marine Hospital Service. April 1st, 1881, to June 30th, 1881.

Bailhache, P. H., Surgeon. Detailed as chairman, Board of Examiners. April 5th, 1881.

Wyman, Walter, Surgeon. Detailed for temporary duty as medical officer, Revenue Barque "Chase." May 31st, 1881.

Long, W. H., Surgeon. Detailed as member Board of Examiners. April 5th, 1881.

Murray, R. D., Surgeon. To proceed to Memphis, Tenn., assume charge of the Service at that port, and inspect the Service at Vicksburg, Miss. April 8th, 1881.

Furviance, George, Surgeon. Detailed as recorder, Board of Examiners. April 5th, 1881.

To proceed to Richmond, Va., as inspector. April 30th, 1881. Detailed as chairman, Board of Survey, to examine applicants for admission to the Revenue Marine Service. May 10th, 1881.

Doering, E. J., Surgeon. Granted leave of absence for thirty days from April 21st, 1881. April 2d, 1881.

Austin, H. W., Surgeon. Granted leave of absence for thirty days from May 5th, 1881. April 2d, 1881.

Gassaway, J. M., Passed Assistant Surgeon. To proceed to Philadelphia, Pa., and assume charge of the Service, relieving Passed Assistant Surgeon Stoner. April 7th, 1881.

Smith, Henry, Passed Assistant Surgeon. To report to chairman, Board of Examiners. April 25th, 1881.

Stoner, G. W., Passed Assistant Surgeon. To proceed to Portland, Maine, and assume charge of the Service, relieving Surgeon Doering. April 7th, 1881.

Fisher, J. C., Passed Assistant Surgeon. Detailed as recorder, Board of Survey, to examine applicants for admission to the Revenue Marine Service. May 10th, 1881.

Wheeler, W. A., Assistant Surgeon. Granted leave of absence for thirty days (he providing a substitute) from July 7th, 1881. June 23d, 1881.

Carmichael, D. A., Assistant Surgeon. To proceed to New York, N. Y., and report to Surgeon Fessenden, for duty. April 7th, 1881.

RESIGNATION.

Doering, E. J., Surgeon. Resignation accepted by the Secretary of the Treasury, to take effect May 20th, 1881. April 2d, 1881.

PROMOTION.

Gassaway, J. M., Surgeon. Promoted to be Surgeon from May 21st, 1881. May 16th, 1881.

Howard's Method of Artificial Respiration.

At this season of the year it will not be inappropriate to republish Dr. Benjamin Howard's latest revised rules for the treatment of the drowned, still born, etc. He calls it the "Direct Method of Artificial Respiration."

1. *Instantly* turn patient downward, with a large firm roll of clothing under stomach and chest. Place one of his arms under his forehead, so as to keep his mouth off the ground. Press with all your weight two or three times, for four or five seconds each time, upon patient's back, so that the water is pressed out of lungs and stomach, and drains freely out of mouth. Then

2. *Quickly* turn patient, face upward, with roll of clothing under back, just below shoulder blades, and make the head hang back as low as possible. Place patient's hands above his head. Kneel with patient's hips between your knees, and fix your elbows firmly against your hips. Now, grasping lower part of patient's naked chest, squeeze his two sides together, pressing gradually forward with all your weight, for about three seconds, until your mouth is nearly over mouth of patient; then, with a push, suddenly jerk yourself back. Rest about three seconds; then begin again, repeating these bellows-blowing movements with perfect regularity, so that foul air may be pressed out, and pure air be drawn into lungs, about eight or ten times a minute, for at least an hour, or until the patient breathes naturally.

Note.—The above directions must be used on the spot, the first instant the patient is taken from the water. A moment's delay, and success may be hopeless. Prevent crowding around pa-

tient; plenty of fresh air is important. Be careful not to interrupt the first short natural breaths. If they be long apart, carefully continue between them the bellows-blowing movements as before. After breathing is regular, let patient be rubbed dry, wrapped in warm blankets, take hot spirits and water in small occasional doses, and then be left to rest and sleep.

Curious Sanitary Discoveries.

A municipal laboratory was not long since opened to the public in Paris, and many of its discoveries have been as curious and unexpected as they promise to be useful. For a small fee anybody can have analyzed samples of food, drinks, or anything connected with public hygiene. Among the articles in which adulteration was chiefly detected were wine, butter and milk. The adulteration of wine consists principally of its being colored with fuchsine, and in many cases it does not contain a particle of the juice of the grape. Milk is deprived of its cream, and abundantly watered, and butter is frequently composed of anything but the ingredients of milk. Several samples of butter were found to be made with oil or suet, which were easily separated, and shown to the visitors who accompanied the Prefect of Police to witness the experiments that were being performed in the laboratory. A sample that was exhibited as cream, which appeared as natural as possible, and of excellent flavor, was declared to have been manufactured with the residue of some red dye, mixed up with oil and sulphuric acid, in certain proportions. Some children's toys were examined, and those painted with red and blue were almost always found to contain poisonous substances, consisting principally of lead and copper. Even articles of perfumery were examined, which brought to light the most extraordinary examples of the skill brought into requisition for the accomplishment of fraudulent practices, for in several samples of scents of the most exquisite perfume they were found to be manufactured with other material than the essential oils of the flowers which they were intended to represent. But the most important discovery made was the presence in the nipples of some feeding bottles of a mass of vegetation, of cryptogamic nature, which, according to Dr. Faurel, bears a great analogy to the aphthous condition of the mouth frequently found in infancy, and he has induced the Academy of Medicine to investigate the matter, as he believes the condition referred to be the origin of the intestinal affections, and particularly that form called "athrepsia," to which infants brought up by the bottle are subject.

Hindu Plan of Purifying Rooms.

Dr. Fred. J. Mouatt, formerly Professor of Medicine in the Medical College at Calcutta, says, in a recent lecture:—

The Hindus of every part of India with which I am acquainted have, from time immemorial, possessed a means of purifying the atmosphere of their rooms and huts, by spreading a light coating of a mixture of earth containing organic

matters, on their walls and floors, which enables them to dispense, to a considerable degree, with ordinary ventilation. The process is called "leaping," and is usually performed by the women of the household. With a view to submit this proceeding to a practical test, I had four cells in the Presidency jail of Calcutta, each containing 480 cubic feet of air and practically unventilated, carefully prepared. Two of them were limewashed throughout, and the two others "leaped." I had four healthy prisoners locked up in them at night, one in each cell. On opening the cells next morning, the two which were limewashed were stuffy and offensive, redolent of the peculiar animal odor exhaled by native prisoners in such circumstances. The two others were as fresh and pure as if no one had slept in them.

The International Medical Congress.

The daily programme of the International Medical Congress has been published. It begins Tuesday, August 2d, at 10 o'clock A.M., and closes Tuesday, August 9th. Meetings and excursions are arranged for each day. The Royal Botanic Gardens and the Zoological Society Gardens will be open, free, to members, on every day of the week. The Lord Mayor will give a banquet. The medical officers of the principal hospitals will be prepared to receive such members as desire to visit these institutions. Numerous soirees and receptions will form part of the entertainment. Special addresses will be delivered by Prof. Maurice Raynaud, of Paris, on "Le Scepticisme en Médecine, au temps passé et au temps présent;" by Dr. Billings, of Washington, on "Our Medical Literature;" by Prof. Volkman, of Halle; and by Prof. Huxley, P.R.S., D.C.L., on the "Connection of the Biological Society with Medicine."

A large number of American medical gentlemen will be present, both as interested spectators and as representatives of various medical bodies in this country. We shall give in the REPORTER a full account of the proceedings of the Congress.

President Garfield's Wounds.

Our readers have all, no doubt, become familiar with the details of the attempted assassination of President Garfield, and with the description of the wounds and their treatment, as detailed at length in the daily papers. A very minute and full report of the medical attendants is in preparation and will be published in due time.

There is considerable difference of opinion among recent authorities on military surgery in reference to the treatment of wounds penetrating the abdominal cavity. This difference principally lies between the extreme advocates of "Listerism" and those who continue the methods in use before the introduction of antiseptic precautions. The former condemn all probing of the wound, and hence all attempts to find the ball. At any rate, if attempted, it should be done with the most complete antiseptic safeguards.

Up to the time of sending this to press, the treatment of the President, backed by the soundness of his constitution, seems to have carried

him out of immediate danger from the consequences of the assassin's shot. All honest men of every party and nation will wish him a speedy and complete recovery.

A Cheap and Active Antiseptic.

A writer to the *Lancet*, Mr. C. F. Kingzett, claims to have discovered a better antiseptic than carbolic acid or oil of eucalyptus, for use in surgery; at the same time it is chemically allied to the latter substance, and but for economical considerations can be produced therefrom. The product is an oxidized oil of turpentine; in other words, the product which he obtains by forcing a current of air through turpentine in the presence of water (or otherwise) during a prolonged period, lasting in practice from one to two hundred hours. By this process of air-oxidation the turpentine absorbs an enormous quantity of oxygen, increasing in density accordingly, and losing its very volatile character. Although the product is not strictly speaking soluble in water, it forms in contact therewith, or even in contact with any moist surface, such as is presented by every wound, certain principles which pass into aqueous solution. These principles are strongly antiseptic, and among them peroxide of hydrogen is to be numbered.

Health Pamphlets.

Clergymen, superintendents and teachers in Sunday schools are informed that the pamphlets entitled "Health Hints" for the care of children during the hot season, with *special rules* for the management of infants, can be obtained for distribution in the Sunday schools by applying at the Central Office of the Society for Organizing Charity, No. 1602 Chestnut street, any day, between 9 A.M. and 4 P.M., or on Saturday until 2 P.M. These pamphlets have been published by the Society in order to protect the health of our children, and it is desired that they may have the widest circulation. These pamphlets are also distributed by the police, by order of the Mayor, and are supplied to all dispensaries, hospitals, day nurseries and other institutions caring for children.

The Quarantine Question.

Dr. Robert B. S. Hargis, of Pensacola, has written an open letter to the National Board of Health, in which he deprecates co-operation of the National Board with State Boards, and urges the importance of quarantining all vessels which shall have crossed the Atlantic Ocean between 32° North and 30° South latitude, whether they come from an infected port or not. Dr. Hargis, as is well known to those who have followed the recent discussions on yellow fever, is an advocate of the deep sea origin of yellow fever.

The Land Origin of Yellow Fever.

Dr. Manuel Da Gama Lobo, has made an elaborate study of the causes of yellow fever, and has summed up his conclusions in a pamphlet just published in New York. With his microscopic researches is given a system of careful ob-

servations on the conditions of temperature, moisture, barometric pressure and direction of winds, during twenty-six years, in the city of Rio de Janeiro. The author believes he has fixed the origin of yellow fever in two places, Havana and Vera Cruz, as its chief nests, and he attributes it definitely to the poison of the "opuntia Mexicana," a species of infusoria, of the family of "bacillarum," which is found particularly abundant in the swamps and waters near those cities. Plates showing this species as existing in its native element and in yellow fever victims accompany the descriptions. The case is not put forth as one of absolute proof, but as a theory supported by strong probabilities. The author is physician to the Emperor of Brazil, and is a pupil of the distinguished Professor Virchow.

Items.

—The chiropodist first dates from William the Conqueror.

—An epidemic of homicidal mania is at present raging in this country. The most effective remedy in the treatment of this form of insanity is *hemp*.

QUERIES AND REPLIES.

Chronic Colitis.

MR. EDITOR.—If Wm. H. C., Ill., would prescribe for his patient all that has been suggested to him, he (patient) would be where he would need no doctors. Chronic colitis amounts to but very little within itself. But when the most absurd drugs are given there is no wonder it then becomes serious. Tr. aconite and tr. nux vomica will cure chronic colitis every time. Why? Because they are generally indicated; aconite for inflammation, nux vomica to tone the bowels and arrest peristaltic motion. I discharge my patients of acute colitis in three days, chronic within nine.

Wilmington, Del.

J. T. V. BLOCKSON, M.D.

Ozone, Conn.—There is, in point of fact, nothing accurately known what relation, if any, the presence of ozone in the atmosphere bears to health. The starch paper used for detecting it is said, by good authority, to be no reliable index to the amount of ozone. The whole subject is one which requires investigation anew.

Water Cure, N. Y.—The bath known in Germany as the *Moorbäder*, is one in which the soil taken from the vicinity of mineral springs is used. This soil is charged with salts and vegetable debris, and is stirred into the bath to the amount required, sometimes until the bath is, in fact, one of thin mud. We do not know of any establishment in this country where this is in use.

Dr. L. D. K., of Pa.—The expenses of living in London do not differ materially from what they are in New York or Philadelphia, which is to say, that for board and lodging it will cost you from a dollar a day upward.

MARRIAGES.

TULL—SCALES.—On May 17th, by Rev. Simmons, Dudley G. Tull, M.D., of Yorkville, Gibson Co., Tenn., and Sallie N., youngest daughter of Major Wm. Scales, of Friendship, Crockett Co., Tenn.

REYNOLDS—MORRIS.—At Covington, Ky., July 13th, 1881, Dudley Sharpe Reynolds, M.D., of Louisville, and Mattie Withers Bruce Morris, of Covington.